DOES NOT CIRCULATE

Journal of THE AMERICAN DIETETIC ASSOCIATION

UNIVERSITY OF MICHIGAN
MAY 14 1954
HOSPITAL LIBRARY

VOL. 30, NO. 5
May 1954

GROUP APPROACH TO WEIGHT REDUCTION
I. Review of Herrick Memorial Project
William D. Simmons

II. Psychologic Aspects of Obesity
Robert F. Suczek, Ph.D.

II. As the Nutritionist Sees Group Weight Reduction
Helen E. Walsh

VEGETABLES FOR THE HOSPITALIZED CHILD
Edna Brown Southmayd and Masa Marioka

CHILDREN WITH AND WITHOUT RHEUMATIC FEVER
Ethelwyn B. Wilcox and Leora S. Galloway

CRITERIA FOR INSTITUTION MANAGEMENT CURRICULA
Grace M. Augustine et al.

The Dietitian in the Mental Hospital

Dietetic Service in a Neuropsychiatric Hospital

Cooking—A Therapy in Mental Illness

Food Service Training in Mental Institutions

The A.D.A. Annual Meeting Philadelphia October 26–29, 1954

PUBLISHED BY The American Dietetic Association

heavy-duty

mfb

the shortening with the high smoke point

SHORTENING SHQ HEADQUARTERS

AN ALL-VEGETABLE PRODUCT OF

THE WESSON OIL PEOPLE

New York • Chicago • Savannah • New Orleans • San Francisco • Memphis • Houston

VOLUME 30
NUMBER 5

Journal OF THE American Dietetic Association

CONTENTS, MAY 1954

THE GROUP APPROACH TO WEIGHT REDUCTION. HERRICK MEMORIAL HOSPITAL PROJECT

I. A Review of the Project—*William D. Simmons* 437

II. Psychologic Aspects of Obesity and Group Weight Reduction—*Robert F. Suczek*, Ph.D. 442

III. As the Nutritionist Sees It—*Helen E. Walsh* 447

VEGETABLES IN THE CHILD'S MENU AT THE HOSPITAL—*Edna Brown Southmayd*, Ph.D., *and Masa Marioka* 450

CHILDREN WITH AND WITHOUT RHEUMATIC FEVER. II. Food Habits—*Ethelwyn B. Wilcox*, Ph.D., *and Leora S. Galloway* 453

DEVELOPING CRITERIA FOR INSTITUTION MANAGEMENT CURRICULA—*Grace M. Augustine*, Ph.D., *Marjorie M. McKinley, and Marion D. Galster* 458

CURRENT COMMENT

The Dietitian in the Mental Hospital—*E. H. Crawfis*, M.D. 464

Role of the Dietetic Service in a Neuropsychiatric Hospital—*Verdi Miller* 465

Cooking—A Therapy for the Mentally Ill Patient—*Margaret R. Rosenmeier* 470

Food Service Training in New York State Mental Institutions—*Katherine E. Flack* 474

CURRENT LITERATURE 480

NEWS NOTES 500

The Journal of the American Dietetic Association is published monthly by The American Dietetic Association, Mt. Royal & Guilford Aves., Baltimore 2, Md., and 620 N. Michigan Ave., Chicago 11, Ill. Neither the Association nor the Editor assumes responsibility for the opinions expressed by authors of papers abstracted, quoted, or published in full in this Journal.

Subscription Rates: $6 per year in advance in the U. S., Canada, and countries of the Postal Union; all other countries, $7 per year in advance. Special rate to undergraduate students and dietetic interns in approved internships, $2 per year in advance, if order is approved by head of the department. Single copies, 75 cents in advance. All correspondence concerning Journal subscriptions, orders for copies or reprints from the Journal, and notices of change of address should be sent to The American Dietetic Association, Mt. Royal & Guilford Aves., Baltimore 2, Md., or preferably 620 N. Michigan Ave., Chicago 11, Ill. Notices regarding change of address should reach the publisher by the *25rd of the month before the date of issue* on which the change is to take effect and both old and new addresses must be given. Claims for Journals lost in the mail will not be entertained more than six months after the date of the issue involved.

Editorial Correspondence: All articles and notices for publication, general correspondence, and inquiries should be sent to the Editor at The American Dietetic Association, 620 N. Michigan Ave., Chicago 11, Ill. Manuscripts are accepted for publication on condition that they are contributed solely to the Journal. Copy must be double-spaced and two copies, an original and one carbon, submitted.

Advertising: All correspondence concerning advertising should be addressed to The American Dietetic Association, 620 N. Michigan Ave., Chicago 11, Ill.

COPYRIGHT, 1954, BY THE AMERICAN DIETETIC ASSOCIATION Printed in U.S.A.

Entered as second-class matter June 30, 1925 at the Post Office at Baltimore, Md. under the act of August 24, 1912

Published monthly by The American Dietetic Association

OFFICERS, 1953-1954, THE AMERICAN DIETETIC ASSOCIATION

Headquarters of the Association: 620 N. Michigan Ave., Chicago 11

Coordinating Cabinet

EXECUTIVE BOARD

President, GRACE BULMAN, Veterans Administration, Washington, D. C.
President-Elect, FERN W. GLEISER, University of Chicago
Speaker of the House of Delegates, E. NEIGE TODHUNTER, Ph.D., University of Alabama, University
Secretary and Chairman, Membership Committee, ESTHER A. ATKINSON, The Pennsylvania State University, State College
Treasurer and Chairman, Finance Committee, DORIS T. ODLE, University of Colorado Dept. of Medicine, Denver

SECTION CHAIRMEN

Community Nutrition, GERALDINE M. PIPER, University of Tennessee, Knoxville
Diet Therapy, DORIS JOHNSON, Ph.D., Grace-New Haven Community Hospital, New Haven, Conn.
Food Administration, MRS. CORA E. KUSNER, Colorado State Hospital, Pueblo
Professional Education, HENDERIKA J. RYNBERGEN, Cornell University-New York Hospital School of Nursing, New York City

COUNCIL OF THE HOUSE OF DELEGATES

Speaker, E. NEIGE TODHUNTER, Ph.D., University of Alabama, University
Speaker-Elect, MARY REEVES, Children's Bureau, Dept. of Health, Education and Welfare, Chicago
Delegates of the House of Delegates
Secretary, MRS. ANNA DEPLANTER BOWES, Pennsylvania Dept. of Health, Harrisburg 1954
LOUISE ESCH, Stanford University Hospitals, San Francisco 1954
ADELIA M. BEEUWKES, University of Michigan, Ann Arbor .. 1955
JANE HARTMAN, Maryland Dept. of Health, Baltimore 1955
Senior Delegates-at-Large
MRS. BESSIE BROOKS WEST, Kansas State College, Manhattan 1954
ELIZABETH PERRY, City Hospital, Cleveland 1954

DELEGATES-AT-LARGE

LILLIAN S. COOVER, Ph.D., 2121 Hughes Ave., Ames, Iowa .. 1955
MANIZA MOORE, Veterans Administration, Atlanta, Georgia . 1955
MILDRED BONNELL, University of Washington, Seattle 1956
MARGARET A. OHLSON, Ph.D., Michigan State College, East Lansing 1956

Headquarters Staff

RUTH M. YAKEL, Executive Secretary
DOROTHY J. BATES, Assistant to Educational Director
MILDRED L. EGEBERG, Advertising and Exhibition Director
MRS. DOROTHY WEBER INYARD, Placement Bureau Director
MRS. THELMA POLLEN, Public Relations Director
WILMA F. ROBINSON, Educational Director
J. HART ROSDAIL, Business Manager
MRS. DOROTHEA F. TURNER, Editor, JOURNAL
HARRIET E. SANKEY, Managing Editor, JOURNAL
CLARA ZEMPEL, Professional Activities Director

ADVISORY BOARD

ANTHONY ROURKE, M.D., Hospital Council of Greater New York, New York City 1954
CHARLES GLEN KING, Ph.D., The Nutrition Foundation, Inc., New York City 1955
FREDRICK J. STARE, Ph.D., M.D., Harvard School of Public Health, Boston 1956

AWARDS, SCHOLARSHIP AND LOAN FUND BOARD

MEREDITH JONES, 157 Aspinwall Ave., Brookline, Mass.

DIETETIC INTERNSHIP BOARD

HENDERIKA J. RYNBERGEN, Cornell University-New York Hospital School of Nursing, New York City 1954

JOURNAL BOARD

ADELIA M. BEEUWKES, University of Michigan, Ann Arbor 1954
CALLIE M. COONS, Ph.D., Chief, Bureau of Human Nutrition Research, U. S. Dept. of Agriculture, Washington, D. C... 1954
MRS. MARTHA NELSON LEWIS, 1553 Demorest Rd., Columbus, Ohio 1954
MILDRED BONNELL, University of Washington, Seattle 1955
MRS. BESSIE BROOKS WEST, Kansas State College, Manhattan 1955
MARTHA F. TRULSON, D.Sc., Harvard School of Public Health, Boston 1955
MRS. CORINNE H. ROBINSON, 90 E. Stewart Ave., Lansdowne, Pa 1956
MRS. ELIZABETH K. CASO, Diabetes Section, Public Health Service, Dept. of Health, Education and Welfare, Boston 1956
MARGARET A. OHLSON, Ph.D., Michigan State College, East Lansing 1956

PLACEMENT BUREAU BOARD

MRS. VERNA A. MCKINLEY, 16 River Dr., Appleton, Wis... 1954
MYRTLE VAN HORNE, Michigan Dept. of Health, Lansing.. 1954
MRS. HELEN H. ANDERSON, Stanford University Hospitals, San Francisco 1954
EVELYN A. CARPENTER, Philadelphia General Hospital, Northern Division, Philadelphia 40 1955
ELIZABETH P. SEARS, 6 Siwanoy Rd., West Hartford, Conn. 1955
HELEN L. TWEEDALE, 15843 Meyer Rd., Detroit 1955
ELMIRA E. BLECHA, VA Hospital, Houston 31 1956
ANNA M. DRISCOLL, University of Utah, Salt Lake City 2... 1956
LUCILLE M. REFSHAUGE, Hartford Hospital, Hartford 15... 1956

INVESTIGATION BOARD

NELL MORRIS, 3522 Rankin St., Dallas 1954
LOUISE ESCH, Stanford University Hospitals, San Francisco 1955
MARGARET H. BROOKES, Ph.D., 5718 S. Dorchester Ave., Chicago 37 1956

COMMITTEE CHAIRMEN

Annual Meeting, EVELYN A. CARPENTER, Philadelphia General Hospital, Northern Division, Philadelphia 40; MARGARET A. NEUBERT, 4821 Fillmore Terr., Philadelphia
Civil Defense, DOROTHY L. BOVEE, D. C. Chapter, American Red Cross, Washington, D. C.
Constitution, ELIZABETH H. TUFT, Wesley Memorial Hospital, Chicago
Educational Exhibits, RITA CAMPBELL, National Live Stock and Meat Board, Chicago
History of ADA, MRS. ANNA BOLLER BEACH, National Live Stock and Meat Board, Chicago
History of Nutrition and Dietetics, E. NEIGE TODHUNTER, Ph.D., University of Alabama, University
Legislative Information, RUTH SPENCER, Veterans Administration, Washington, D. C.
Library, ELIZABETH H. TUFT, Wesley Memorial Hospital, Chicago
Nominating, DORIS JOHNSON, Ph.D., Grace-New Haven Community Hospital, New Haven, Conn.
Program Planning, BEULAH A. HUNZICKER, The Presbyterian Hospital, Chicago; MIRIAM E. LOWENBERG, Ph.D., The Pennsylvania State University, State College
Public Relations, A. JUNE BRICKER, Metropolitan Life Insurance Co., New York City
Vocational Guidance, GERTRUDE MILLER, Veterans Administration Center, Los Angeles

PRESIDENTS OF STATE DIETETIC ASSOCIATIONS AFFILIATED WITH THE AMERICAN DIETETIC ASSOCIATION

ALABAMA: Dr. Bessie L. Davey, Box 2634, University of Alabama, University
ARIZONA: Mrs. Florence R. Watson, Box 52, Whipple
ARKANSAS: Mrs. Nell R. Payne, 3912 Skywood Dr., Little Rock
CALIFORNIA: Virginia F. Stokdyk, 251 Parnassus Ave., San Francisco 17
COLORADO: Mrs. Louise C. Poley, 1825 W. Mosier Pl., Denver 19
CONNECTICUT: Mrs. Edith M. Cushman, State Dept. of Education, Hartford
DELAWARE: Dolores Barchick, 1226 Washington St., Wilmington
DISTRICT OF COLUMBIA: Mrs. Marjorie Beattie, 6234 Valley Rd., Bethesda 14
FLORIDA: Mrs. Dorothy C. Monroe, VA Hospital, Lake City
GEORGIA: Margaret Dykes, Georgia Dept. of Public Health, Atlanta
IDAHO: Shirley A. Newcomb, 312 Ash St., Moscow
ILLINOIS: Isabelle N. Peterson, 1400 Lake Shore Dr., Chicago 10
INDIANA: Hazel E. Wessel, Methodist Hospital, Indianapolis
IOWA: MRS. Darleen P. Ayres, 1600 N. Ash, Ottumwa
KANSAS: Mary J. Carter, Watkins Memorial Hospital, Kansas University, Lawrence
KENTUCKY: Florence A. Imlay, University of Kentucky Experiment Station, Lexington
LOUISIANA: Helen E. Underwood, Caddo Parish, 501 Courthouse, Shreveport
MAINE: Dorothy L. Woodcock, Dept. of Health & Welfare, Augusta
MARYLAND: Pela F. Braucher, 110-E Ames Rd., Northwest Pk., Silver Spring
MASSACHUSETTS: Isabel Patterson, Brookline Health Dept., Brookline 46
MICHIGAN: Isabel Foster, University Hospital, Ann Arbor
MINNESOTA: Ethel Heaberlin, Minnesota Dept. of Public Welfare, St. Paul
MISSISSIPPI: Mrs. Lucille S. Ryan, 226 Redwood Ave., Jackson 9
MISSOURI: Henrietta Becker, Barnes Hospital, St. Louis
MONTANA: Sister Ann Perpetua, St. Vincent Hospital, Billings
NEBRASKA: Betty J. Yapp, Lincoln General Hospital, Lincoln 2
NEVADA: Mrs. Muriel P. Pelham, VA Hospital, Reno
NEW HAMPSHIRE: Alice W. Van Dyke, St. Paul's School for Boys, Concord
NEW JERSEY: Reisel Hirschfield, VA Hospital, East Orange
NEW MEXICO: Mrs. Madge L. Halvorsen, 1608 Cardenas Dr., N. E., Albuquerque
NEW YORK: Dorothy Kinnear, 165 Ft. Washington Ave., New York City 32
NORTH CAROLINA: Rebecca P. Rogers, Watts Hospital, Durham
NORTH DAKOTA: Mrs. Winnifred L. Hipsley, VA Hospital, Minot
OHIO: E. Inistore Simms, Youngstown Hospital Association, Youngstown 4
OKLAHOMA: Mrs. Mary A. Morris, R. R. #1, Chickasha
OREGON: Olive C. Carlson, VA Hospital, Portland 7
PENNSYLVANIA: Sister Maude Behrman, Lankenau Hospital, Philadelphia 31
RHODE ISLAND: Helen C. MacLean, St. Joseph's Hospital, Providence
SOUTH CAROLINA: Margaret Freeman, Cardiac Clinic, Medical College, Charleston 16
SOUTH DAKOTA: Dr. Lida M. Burrill, Home Economics Division, College Station
TENNESSEE: Bernice M. Hopkins, Vanderbilt University Hospital, Nashville 4
TEXAS: Dr. Florence I. Scoular, N. T. Station, Box 5217, Denton
UTAH: Anna M. Driscoll, 470 So. 13th E., Salt Lake City
VERMONT: Kathleen Van Cleft, Vermont Dept. of Health, Burlington
VIRGINIA: Beth Byers, Jefferson Hospital, Roanoke
WASHINGTON: Grace E. Olsen, University of Washington, 204 Raitt Hall, Seattle 5
WEST VIRGINIA: Sister Edwina Zerwas, C. M. P.; St. Mary's Hospital, Huntington
WISCONSIN: Mrs. Norma T. Dolan, 4904 W. Wisconsin Ave., Milwaukee 13
HAWAII: Mrs. Shizuko H. Miyamoto, 332 N. Kuakini St., Honolulu 17

Herrick Memorial Hospital Project

We have just left the glandular period of obesity which has been thoroughly discredited except as noted by Rynearson who writes[1] that "the most important glands in the production of obesity are the salivary glands." Further, he refuses to say that the glands of internal secretion have nothing to do with the deposit of fat, remarking that "surely by now someone has noticed a difference between male and female."

Having escaped the glandular influence, we are now under the Freudian star. Some, like Brosin,[2] apparently believe that most obesity is due to emotional conflicts, while others, like Rose,[3] feel as we do, that there are many reasons why people overeat, largely environmental and sensual.

Many of these should be amenable to simple example, education, and the ventilation afforded by the group method. The others who suffer from severe maladaptation might even be harmed by such an attempt.

Being aware of the failure of the individual approach to treating obesity and realizing the pressing need for a way to effect reducing in a large number of people while conserving personnel, we began to investigate the group approach at Herrick Memorial Hospital in 1950. You will learn more about the details of the project in the reports that follow.

Looking into the future we see both a widespread educational program aimed at prevention and at the same time, weight reduction centers established in hamlets across the country. Not enough trained personnel exist to man such a project. It is our belief that any people-minded, i.e., sympathetic, individual could act as a group leader, but perhaps the additional requirement of group training or experience may be necessary.

These leaders would be supplied with a manual containing the necessary factual dietary information as well as the answers to most of the questions that arise in the group situation as learned in the Herrick and other pilot studies. In addition, each region would be provided, when available, with consultation from universities, county medical groups, or health departments.—

H. I. Harvey, M. D., Department of Research, Herrick Memorial Hospital, Berkely, California.

THE GROUP APPROACH TO WEIGHT REDUCTION

1. A REVIEW OF THE PROJECT[4]

WILLIAM D. SIMMONS

**Administrator, Department of Research,
Herrick Memorial Hospital, Berkeley**

RECENTLY there has been widespread interest in weight reduction programs which use group methods. Reports on some of these projects in the literature have been encouraging, although controlled studies and comparative data are lacking.

The importance of obesity—both because of its prevalence and its detrimental connection with physical and mental health—the failure of treatment by dietary advice alone, and the promise

[1] RYNEARSON, E. H.: Endocrine glands and overweight. Presented at Medical Research Conference on "Clinical Problems of Advancing Years," sponsored by Smith, Kline, and French, March 16, 1949.

[2] BROSIN, H. W.: The psychology of overeating. New England J. Med. 248: 974, 1953.

[3] ROSE, E.: Psychic and emotional factors in obesity. Presented at Medical Research Conference on "Clinical Problems of Advancing Years," sponsored by Smith, Kline, and French, March 16, 1949.

[4] Presented at the 36th Annual Meeting of The American Dietetic Association in Los Angeles, on August 27, 1953.

which some kind of group approach might hold led to the establishment in 1950 of a study of such methods at Herrick Memorial Hospital.

Funds for the project were made available through the Bureau of Chronic Diseases in the California Department of Public Health. Herrick Memorial Hospital, a 250-bed private community hospital, was granted the funds because of the particular interest and background in the problem of obesity of its Chief of the Department of Medicine and its interest in a wide range of community service programs. The lively interest in the problems of group activity among the staff of the state health department, the faculty of the state university, and the staffs of other official and voluntary agencies provided an especially resourceful community in which to carry out this research.

The chief aim of the research, started in July 1950, was to investigate the use of group methods as an approach to the problem of losing weight and to determine the effectiveness of such methods. In discussions, differentiation should be made between "group psychotherapy" which is a particular dynamic therapy situation employed in psychiatric clinics, and "group work" or "group methods" or "group approach" as we use the terms, which seem to cover a salutary experience of recognition, acceptance, support, and competition. This approach promises action, perhaps, by providing a special new, purposeful social grouping within which habit change is not only sanctioned but encouraged for each participant by the dynamic force of group decision.

The First Year

In the first year—a frankly exploratory period—the objective was to recognize, if possible, the factors which seem to be important in the success or failure of attempts to help people lose weight by participation in groups oriented toward this goal. An additional aim was to determine the effect on several physical tests (blood pressure, blood cholesterol levels, lipoprotein macromolecule concentrations, and electrocardiogram tracings) of weight reduction brought about by diet in a group of overweight individuals.

The first 107 overweight volunteers from a large number who responded to a newspaper item formed the study group. After physical examinations and laboratory tests, they were assigned to groups which met with professional leaders. These leaders, chosen on the basis of interest and experience in group leadership, were two nutritionists, a psychologist, a physician, an instructor in social group work, a health educator, and an instructor in adult education assisted by three graduate students. Each leader was urged to use his own ways of working with a group.

Those volunteers—all women—who were accepted for the study were arbitrarily assigned to eight groups of sizes believed by the group leaders to be consistent with the different approaches they proposed to use. Thus the eight groups varied from eight to twenty-nine members. With the exception of one group which met every two weeks, the groups met once a week over varying periods of time, from three to seven months, totaling from thirteen to twenty-three meetings.

A low-calorie, low-fat diet was adopted by the medical director. In three of the groups, the assumption was made that the people expected to diet and it was given right away as an authority act; in three groups, the diet was withheld until group discussion and decision led to a request for it; and in two more groups, request for the diet was left up to the individual. Where the group leader could not provide it, medical and nutritional advice were available as the groups felt the need for such discussion and initiated a request for it.

Results

In this first year, 79 participants of the original 107 attended a quarter or more of the meetings held for their respective groups, and 57 attended at least half of the meetings. Forty-one participants lost 10 lb. or more; of these, 20 lost 20 lb. or more. The maximum individual weight lose was 43 lb. Five neither lost nor gained; 17 gained 1 to 8 lb.; and 1 gained more than 10 lb. The total weight lost by the 79 participants who remained in the study was 901 lb. There was no significant difference in the loss of weight among the variously led groups.

One year following the end of the project, it was possible to contact 75 of the volunteers, 38 of whom had lost more than 10 lb. during their active participation in groups. Of these, 10 stated they had continued to lose 1 to 21 lb.; 3 reported they had maintained their weight; and 25 reported a gain. Seventeen individuals who had not lost a significant amount of weight (i.e., less than 10 lb.) during the project itself reported they had since lost from 2 to 40 lb.

Conclusions at the End of the Year

The results of this variety of group experiences were considered sufficiently encouraging to warrant further trial during a second year. Our main conclusions were three:

(a) The group experience should be structured—that is, those participating must have the feeling that the project is set up with reliable sponsorship, medical supervision, and a definite plan with weight loss as the objective. Members feel that acceptance into these special groups is meaningful. Careful orientation to the idea of groups and to the expected procedures is part of this process.

(b) There are at least two kinds of groups: those which provide nutritional information with guidance

in its application, plus leader and group reinforcement in striving directly to achieve realistic weight reduction goals, and those which attempt to help the members understand and deal with their problems in day-to-day living as a means of attacking indirectly their motivation for overeating. The first year's experience suggested that there are personality differences which lead to differential response to various group situations.

(c) An efficient group approach has the advantage of economy of staff time plus providing a controlled interpersonal social situation in which overweight individuals may be better studied and helped. Such an approach is practicable for a community or clinic, and methods which can most likely be developed in the average situation should be tested.

The Second Year

In line with these conclusions, many of the observations which seem important in the success or failure of the group approach to weight loss were utilized in planning the second year's work.

It was felt that each of our three conclusions could be observed better if as many aspects of the program as possible were consistently administered. This would structure the experience, enhance the differences between the two approaches, and permit a test of methods which could be developed in the average community.

Procedures in conducting the second year of the study can be most simply detailed under the headings: (a) the participants, (b) the groups, (c) the leaders, (d) the meetings, and (e) the results. It should be remembered that, since the predominant interest was in research, the situation was somewhat artificial.

Participants

RECRUITMENT. Volunteers were obtained through referrals from private physicians or clinics, and by self-referral in cases where interest was aroused by newspaper articles describing the project. Physicians named by the latter group were contacted for permission to enroll their patients. Participation had to be voluntary and was based on physical fitness, i.e., no contraindication to weight reduction, at the time of the medical examination. The assumption was made that the group of a hundred thus selected was representative of other groups of otherwise healthy individuals seeking help with an overweight problem.

ORIENTATION. Each applicant was oriented to the idea and procedures of a "group approach," to the importance of regular attendance, and to availability for follow-up.

ASSESSMENT PROCEDURES. Each applicant was then scheduled for:

(a) A complete physical examination and battery of laboratory tests which included a chest X-ray, both for lung pathology and cardiovascular findings, hemoglobin determination, urinary analysis for sugar and albumin, blood cholesterol level, and lipoprotein macromolecule (S_f 10–20, S_f 20–100) concentration. The tests for blood pressure, cholesterol level, and giant molecule concentration were repeated at monthly intervals, and the electrocardiogram repeated at the conclusion of the observation period in those cases where the first tracing was considered abnormal.

(b) An interview with a nutritionist who, using a schedule which was devised for this project, elicited information on food habits, patterns, attitudes, and background. Such an interview was held with each individual, both before and after her participation in the series of sixteen meetings.

(c) A battery of psychologic tests employed not only for their value in gaining insight into the personality but for some additional special uses. These tests also were repeated at the end of the series of meetings.

GROUPS. Participants were divided as to age above or below forty years and assigned in random order to one of eight groups. Four groups represented a "direct" approach and were led by a nutritionist and a health educator. Four, representing an "indirect" approach, were led by a social group worker and a psychiatric social worker. Each leader, therefore, had two groups, an above-forty and a below-forty group.

Assignment by sex, age range, and general activity, e.g., homemaker or employed, appeared to result in better attendance. Perhaps grouping by rough degree of overweight, i.e., those with little to lose or those with a major weight problem, also may have certain advantages.

SIZE. About fifteen members had been found enough to provide the group with resources and yet keep it small enough so that all could participate.

TIME. Sixteen meetings, once a week, had been found adequate for research. In a service program, those with long-term reduction problems probably need support and guidance for a longer period. Meetings usually lasted about 1 to 1½ hr. Perhaps shorter sessions would be as effective.

Leaders

DISCIPLINES. The leader frequently acted mainly as a catalyst, helping the group to move toward its goal, and her main qualifications seemed to be interest, sympathy, willingness to listen, and skill in dealing with people. A background in nutrition enabled her to answer such questions when they arose. Since we tend to learn when information is provided at the moment our question is asked, this had obvious advantages.

CONSULTATION. Where the leader was unable to

supply specific dietary or medical information, consultants were available. Perhaps other patterns, e.g., team approach, resource person in groups, and so on, could be worked out. Staff meetings of group leaders were found useful for discussion of problems and to compare various leadership roles so that effectiveness of all groups might be encouraged and improved.

RESPONSIBILITIES. Leaders were responsible for the content and structuring of their own meetings and for defining their role with the group. In addition, for research purposes, they kept an attendance record, made a weekly weight check, administered occasional post-meeting reaction questionnaires, and reported on several aspects of each of their meetings with the group, using a form devised for this purpose.

Meetings

ENVIRONMENT. The main requirement seemed to be for comfortable privacy. A token charge for a series of meetings may be a useful technique to keep attendance at a high level.

STRUCTURE. Some groups had a comparatively structured experience, others a very permissive one. This varies, also, in any one group, from time to time, with some meetings being devoted to information giving, other meetings being used mainly for ventilation, personal revelation, and small talk. Competitive devices frequently enjoyed a vogue in the beginning, but were eventually replaced by solicitude and group reassurance offered to less successful members.

CONTENT. Diet and dieting experience, food habits, reasons for overeating, reasons for wanting to lose weight, menu preparation, and low-calorie recipes were frequent content areas. Other topics, depending to a certain extent on the leadership, ran the gamut of human experience and, by relative amount of discussion time, probably were more important to group members than the dietary topics. Each group, at one time or another, seemed to discuss the same subjects.

DIET. The same diet (1000 calories with 80 gm. protein, 80 gm. carbohydrate, 40 gm. fat) was given to all participants at the beginning of the program. The medical director gave to each individual an ideal weight goal based on height and frame determination taken at the physical examination. It was expected that the majority of dieters could lose about 2 lb. a week on the prescribed diet.

Results

At the conclusion of the sixteen-week period, there remained 95 of the original 109 participants who had attended more than a quarter of the meetings and 89 who had attended at least half. Seventy-eight had lost 10 lb. or more; of these, 46 had lost 20 lb. or more. Maximum individual weight loss was 51 lb. Only one did not lose weight; none gained. A total weight of 1746 lb. was lost by the 95. There was no significant difference in the loss of weight among the variously led groups.

The Third Year

Feeling that if some was good, more would be better, we planned the third year to take full advantage of the apparently useful changes of the second year: (a) the careful orientation of each subject at the outset; (b) the relative homogeneity of the groups; and (c) the generally more carefully structured program.

We made each person responsible for obtaining her own doctor's permission to take part in the study so that we would assure ourselves of a well motivated group. We oriented our participants in groups so that questions would flow more freely and the ideas of groups might be spontaneous. We planned the groups carefully to be roughly homogeneous. Leaders without any past experience in the project were chosen, but prior orientation sessions were held with them so that all groups might be structured somewhat similarly. Group leaders' meetings were held bi-weekly to discuss what had happened in the groups, to share the problems of leadership, and to help with their solution.

As though to mock our deliberate efforts to test the methods by improving the results, the third year was plagued with drop-outs, comparatively poor attendance, and smaller weight loss. Sixty-four, slightly more than half of the original group, attended more than half the sessions. Forty lost 10 lb. or more; of these, only 9 lost 20 lb. or more. Six neither lost nor gained, and 6 gained from 2 to 6 lb. The maximum individual weight loss was 39 lb. The total weight loss for the group was 894 lb.

It is too soon to dismiss this as only a trial to our patience. We may learn a great deal of significance from this record when we complete our task of correlating weight loss with psychologic profile, attendance, and so forth.

Follow-Up Studies

To determine the ultimate effectiveness of group methods for wider application, long-term follow-up is necessary to demonstrate whether there will be significant achievement and maintenance of ideal weight goals.

We have now completed a two-year follow-up on our first study group and one-year follow-up on the second-year group. Generally speaking, in the absence of completed analyses of the total figures, our participants have a disappointing record since leaving the groups. Many have started to regain the weight they had lost. A few have held the line but have not continued the loss necessary to bring

them to ideal weight. But to cheer us on, we have one group of ladies who have made consistent and remarkable inroads on their weight problem. This group comprises roughly 25 per cent of an original population of about 200.

Perhaps the most interesting aspects of follow-up are the comments which we receive about the groups on "looking back." Despite the rather disappointing record, there is almost unanimous agreement that "I have been more aware of my weight and eating," "this is better than I have ever done before," and "the group meetings were most helpful." Perhaps these stages of realization deepen with continued experience until motivation becomes action.

We have also had an opportunity to observe what happens when a group "goes on its own." We have three groups which have held together without a leader, and one large active "alumnae" group which busily proselytizes among our current participants. "Spies" in this group have promised to keep for us exact accounts of what goes on.

Examination of the foregoing material emphasizes how much remains to be learned about obesity, its patterns, the motivations for weight control, and ways of providing efficient and effective help for the overweight.

Summary and Conclusions

The larger objective of this study has been achieved in that over three hundred overweight individuals have been observed over a period of time in an attempt to evaluate their response to a group environment specifically set up to help them adhere to the limitations of a reducing diet. The observations, both subjective and objective, though inconclusive at this time, do, nonetheless, disclose trends which seem significant. Specifically, an examination of the objective data shows that:

(a) The application of group methods to the problem of weight reduction is effective in bringing about satisfactory weight loss for a majority of participants.

(b) Long-term follow-up is necessary to demonstrate whether there is significant achievement and maintenance of ideal weight.

(c) Individuals from several disciplines of training and experience appear to be equally effective as group leaders.

With respect to the subjective observations and the general concept of group reducing, it seems that:

(a) There is better response to a group situation which is structured in terms of definite goals, orientation to the procedures, understanding of the leader's role and of the functions of the group.

(b) The formation of plans for continued support should be stimulated from the beginning. The people need such support, and yet sponsoring agencies cannot guarantee to provide it.

Selective Menu Increases Food Acceptance

The patient benefits only from the food he eats—not from the food that goes back on the tray! But how is greater food acceptance to be accomplished? In discussing this problem before the Kentucky Dietetic Association last spring, Grace Bulman, A.D.A. President, emphasized patient contact as an important factor in the following way:

"An example of benefits derived from alert patient contact was demonstrated with approximately ninety patients in a tuberculosis unit. The dietitian had visited these patients daily and attempted to respect their preferences within reason. Despite this, dissatisfaction and unhappiness, frequently prevalent with this type of patient, continued, and plate waste was high. This dietitian arranged a consultation with the Chiefs of the Medical and Tuberculosis Services. As a result, a trial period using a selective menu in combination with an educational program was begun. For orientation, the patients were given duplicated material explaining the way in which the menu was to be used, and a 'pep talk' emphasized the importance of the selection of an adequate diet as a part of their treatment.

"In this instance, the selective menu was made up from the regular menu and provided a choice of 'regular menu' potato, or baked potato, two vegetables, two salads, breads, desserts, and beverage. The entree was taken from the soft diet. Patients were encouraged to indicate any deviation from the usual size of portion, as well as their choices of items. Their selections were checked for adequacy.

"The greatest variation from the regular diet proved to be in the selection of vegetables, with frequent omission of potatoes. Soon foods formerly rejected were selected. The plate waste was carefully checked, and during the first month it dropped two-thirds. During the next two months, it gradually fell to less than one-fourth the original quantity. On the other hand, the total amount of food required for the ward dropped very little, indicating a marked increase in food intake.

"In this case, with limited study and little effort, dietary care of patients was improved and a close working relationship developed between professional groups."

THE GROUP APPROACH TO WEIGHT REDUCTION

2. Psychologic Aspects of Obesity and Group Weight Reduction[1]

ROBERT F. SUCZEK, Ph.D.

Clinical Psychologist, Department of Research Herrick Memorial Hospital, Berkeley, and Permanente Psychiatric Clinic, Oakland

TWO areas of psychologic research are being given consideration in the Herrick obesity project: (a) the personality of the obese person and (b) the use of a group to facilitate the process of weight reduction. Data for the study of the obese personality consists largely of psychologic tests. Some of these are the standard diagnostic equipment of many psychiatric clinics and research groups (1, 2), while others are relatively new instruments for the study of personality (3). All of the test data are being evaluated and interpreted on the basis of a unified and consistent interpersonal theory of personality which has been developed by another research group (4). Data for the study of weight-reduction groups, aside from test data, are based on observations by group leaders and on follow-up interviews with groups and leaders.

The personality tests are administered to groups of applicants prior to their assignment to discussion groups and again following the sixteen weeks of group meetings. From these tests are obtained data regarding such personality factors as how the obese woman sees herself as a social being, how she is perceived by others, i.e., what kind of a person she appears to be to others, the kinds of psychologic defenses or security measures she may use in dealing with people and social situations, and how she interprets and reacts to a variety of common social situations. Some data are also being gathered regarding how the obese woman feels about, and how she feels she has been treated by, some of the people who have been important in her life, i.e., her mother, her father, and her husband. Data are also being gathered on how the members of a group feel about their group leader.

With these data it should be possible to evaluate some of the psychologic theories regarding obesity and to develop some new ones. It should also be possible to develop screening tests which will help to determine which obese patients can get help from weight reduction groups and which should be given different kinds of help.

The present paper presents some of the findings from personality test data and observations of one hundred overweight women. These findings are preliminary and must be corroborated by further evaluation of this and other samples.

PRELIMINARY PERSONALITY TEST FINDINGS

Degree of Anxiety

Some personality tests provide a rough, over-all measure of the degree of disturbance or anxiety that a person experiences in meeting life situations. Disturbance is here distinguished from maladjustment or malfunctioning in life situations, which may go on without the maladjusted person being disturbed or anxious. On tests of this kind then, a large proportion of overweight women were statistically within normal limits. Disregarding the personality type, or the kind of psychologic problems they had, and considering only how much anxiety was indicated, it can be shown that 70 per cent of the subjects were no more anxious than the average person in an average community. Only 30 per cent of our subjects showed anxiety to the degree and of the kind that is characteristic of people coming to psy-

[1] Presented at the 36th Annual Meeting of The American Dietetic Association in Los Angeles, on August 27, 1953.

chiatric clinics. Considering the fact that overweight people as a group are thought to be seriously disturbed, anxious people, this 30 per cent is a fairly small proportion.

Two interpretations of these results are possible. On one hand, it is possible that the tests used are too rough a measure of disturbance and many subjects were not properly evaluated. Clinical observation of overweight people would certainly support this interpretation. On the other hand, it is also likely that the observation of severe disturbance has been made in the past on a selected and restricted sample, that is, only on those overweight people who have been sufficiently disturbed to go to a physician, a psychiatrist, or a psychiatric clinic for help. In this connection it should be noted that the Herrick sample was composed of overweight women who volunteered for the study because they wanted to reduce, not because they felt they needed psychiatric treatment.

In brief, the overweight population apparently consists of a small group who are seriously disturbed (and seek treatment in a psychiatric clinic) and a larger group who are not anxious people, even though in their tests and to the trained observer, they may have signs of serious psychologic problems.

Personality Differences Among the Obese

Another common conception—among overweight people themselves as well as among those working with them—is that overweight people, as a group, are very similar to each other in their personality make-up and characteristics. A variety of ideas regarding the ways in which they are similar can be heard and read about: overweight people are dependent, weak-willed, immature, clinging, and so on. The ideas vary with the observer and the situation, but the thinking is that obese people are basically all alike in their personality make-up or in what they lack in their character. Here again, it is possible the observations have been made on a specially selected group or from a special viewpoint.

If one hundred obese women, such as in the Herrick sample, are given the same personality test and that test is scored and evaluated in the same way for each one, it is apparent that there are many different personality types among them. One test used with the Herrick sample can be interpreted in terms of some conventional psychiatric diagnostic categories, as, for example, psychosomatic, depressed neurotic, schizoid personality, hysteric, and so on. Ignoring, for the moment the degree or severity of maladjustment represented by each of these labels, the Herrick sample can be divided into six groups of this kind, ranging in size from nine subjects in the smallest to twenty-eight in the largest group. These groups represented a variety of personality characteristics and ways of psychologic functioning.

To illustrate the point further, another kind of test, which shows how a person interacts with others, produces similar results. A number of different and distinct groups can be isolated; some are active, dominating leaders; some can get along only by following others; some are aggressive and hostile in their relationships; some are dependent and submissive. The variety in personality type—one overweight person compared with another—is considerable. It goes without saying that the problems brought to a nutritionist or dietitian by an overweight person are equally individual and diversified.

If diversity, rather than similarity is the case, why is it that clinical observations of overweight people as a group do show similarities? Certainly they share a common symptom—overweight and overeating—and a common difficulty—dieting. The physician, the dietitian, and the nutritionist can testify that their overweight patients present similar complaints and problems. Is it true that many psychologic motivations and problems underlie the common problem of obesity? Or is there some basic psychologic factor that is common to all or to most overweight people?

Similarities in Personality

Re-evaluating the personality test data by looking at it from another point of view offers some suggestions. By summarizing the data for the entire group of one hundred women and comparing their main personality characteristics with the main characteristics of other homogeneous groups given the same tests, the common features can be seen more readily. Thus, for example, comparing the Herrick sample with samples of patients having such symptoms as ulcers, hypertension, colitis, and with such groups as depressed neurotics and college freshmen, it can be seen that the overweight group was fairly homogeneous. A large majority (about 90 per cent) were women who in their relationships with others tend to be more strong, dominating, and independent than people in the other groups. Only a few (about 10 per cent) were weak, dependent, asking-for-help, and in that sense, similar to the psychoneurotic group.

As a preliminary indication of one way in which overweight people may be psychologically similar, this finding is particularly interesting. The one observation that has been made by virtually all professional people working with overeaters is that they are apparently unable to stick to a diet consistently. This is probably why they are so commonly thought to be dependent, immature, and weak-willed. In other words we have assumed that the overeater suffers because of the *absence* of something in his make-up. The present data suggest that the reverse may be true; that at least in part, it is the *presence* of a trait, characteristic, or attitude which is responsible for difficulties in dieting.

It is a common characteristic of the human being, large and small, thin and fat, to want to resist when he is told he must do something he does not wish to do. His sense of independence is threatened and his "back is up." In this sample of overweight women, there was a high proportion who showed the normal amount of strength and independence; they were in certain respects just as strong-willed and self-reliant as any other "normal" group, enough so that it was a major characteristic. It seems logical that it is this prized possession of independence and resistiveness which we are up against when we attempt to help overweight people to reduce.

However, that it is a single factor such as independence or "resistance" alone is doubtful. Observation of groups discussing their problems with overeating suggests that it is a combination of conflicting motivations which operates in the overweight person, that is, that he is extremely ambivalent or mixed in his feelings about himself. He wishes, on one hand, to be normal in physical appearance, in weight, and on the other hand to remain free of restriction and domination—whether imposed by others or by himself. One side of his ambivalence is uppermost at one time and he reduces, but when the restriction becomes unbearable and the other side supersedes, he resists dieting and again overeats. There is some evidence for this idea in the fact that many subjects do not continue to diet after leaving weight reduction groups. Thus far, of course, this is only clinical observation and speculation. Further evaluation of objective data may support or refute the idea.

Little Need for Psychiatric Help

These findings have bearing on another common conception about obesity. A logical conclusion in the past has been that since most overweight people have serious emotional problems, they should be treated by a psychiatrist rather than a physician; psychotherapy would lead to weight reduction. As the discussion above suggests, and as many therapists will testify, this is an erroneous conclusion. Although a large portion of the Herrick subjects undoubtedly had serious emotional problems, only a small group were found to be disturbed or anxious about themselves. It was also noted that only a small proportion had personality characteristics similar to psychoneurotic patients. Of these, even a smaller number were the kind who are motivated for psychotherapy.

Thus, although many obese people may be in need of psychiatric treatment, only a few are motivated to accept it or make successful use of it. This applies to individual psychotherapy and group therapy as well. In the present stage of development of psychologic treatment methods, the old adage still applies: "You can lead a horse to water, but you can't make him drink." Psychotherapeutic efforts with obese patients have been frequently difficult and disappointing.

USE OF GROUPS IN WEIGHT REDUCTION

There are many kinds of groups and group leadership. In the Herrick project, three kinds have been evaluated. These may be termed: (a) group psychotherapy, (b) social group work, and (c) the group discussion. These three methods are alike in that they involve some kinds of communication between people, a sharing of information and problems, clarification and solution of problems in a more or less permissive group atmosphere which allows identification with the group and effort toward a common goal.

The differences between these methods are much more difficult to describe. They differ in the nature of the leader's job, in the focus of attention of the group, and, of course, in the specific goals of the leader and members of the group. Putting it very generally, briefly, and probably far too simply, the three methods differ in the depth of psychologic understanding, awareness, and change that group members can be helped to achieve. Thus, if the three were to be put in rank order of the "psychologic depth" or level at which they aim, group therapy would probably be placed at the deepest level, social group work at the intermediate level, and group discussion at the most superficial level of consciousness.

Evaluation of these three methods as ways of facilitating weight reduction has thus far demonstrated that they were equally effective in terms of the amount of weight lost by members during the time the groups were meeting. Group psychotherapy and social group work produce greater change in the personality tests, and a large proportion of such changes were in the direction of better adjustment. Group discussion on the other hand, produced fewer such changes.

In brief, it may be said tentatively that leaders who are specialists in group psychotherapy and in social group work may help to bring about psychologic changes as well as weight loss, and thus may be more desirable, if available, for projects of this kind. On the other hand, it would appear that, for weight reduction purposes, the professional people already concerned with weight reduction—nutritionists, dietitians, public health specialists—who have no specialized training of this sort, are able to lead discussion groups and achieve satisfactory weight loss in groups with a saving of staff time.

A logical conclusion, then, would be to use specialists in group psychotherapy and group work with those overweight people who are motivated to use the psychologic help and to work out better group methods for the others who simply want to reduce.

SCREENING FOR DISCUSSION GROUPS

A step in this direction is the use of psychologic tests and other measurements, i.e., age and degree of overweight, as screening devices for selecting individuals for various kinds of group methods. For example, on the basis of the degree of anxiety shown on tests, a Herrick sample was divided into three parts: those with the greatest anxiety, those with moderate anxiety, and those with little or none. The largest number of successful reducers were in the moderately anxious category. Those who had the greatest anxiety were the poorest weight losers. From this it may be possible to predict which people will be successful in a weight reduction group.

Results of this kind suggest that people can be effectively screened out in future research or actual weight reduction programs conducted in a similar fashion. Probably those who are screened out will need further individual evaluation followed by referral for specific nutritional, medical, or psychologic care. The others, who, by their test results and other characteristics, show that they may be "good weight losers" in discussion groups, can be placed in such groups with a fair degree of confidence.

DISCUSSION GROUP LEADER

The discussion group leader who has had no training for specialized group work and plans to work with overweight people should be a person who has had some experience dealing with individuals and groups of various kinds, enough to feel relatively comfortable and confident with a group. Technical training and experience in nutrition, dietetics, public health, or related fields will add to the leader's security and permit him to give practical advice and to aid in discussion of diet and health problems. Although the leader will be called on to give practical advice, his primary task is to put the group at ease and to help the individuals to discuss their problems frankly and openly, allowing and encouraging them to function at their level and in terms of their interests rather than forcing any preconceived pattern on their discussions or presenting them with a didactic program. In brief, the leader's main job is to foster and facilitate communication within the group. This at times may involve the diplomatic suppression of overly communicative group members and encouragement of reticent ones to participate.

A group will function better if the plan of how it is to function is clearly presented to the prospective members before they start and again at the time of their first meeting. Clear structuring of what they may and may not expect, how long it will go on, and so on, is extremely important in reducing the initial anxiety the members will feel, and in helping them make use of the group situation. A definite number of meetings should be decided on beforehand. Each group should be as homogeneous as possible with respect to age and socio-economic level, and to some extent, with respect to degree of overweight. Usually it is also important, for the sake of free communication, that friends and relatives not be included in the same group.

MEANING OF A GROUP TO ITS MEMBERS

A group of this sort has many meanings to its members. It provides an accepting social situation in which problems (both personal and dietary) can be shared and explored; many individuals are surprised and relieved to learn for the first time that others have problems similar to their own. It is often the only social situation where the obese person can talk about her obesity as well as her unusual appetite. It is a situation where shame, ridicule, and guilt are not apt to be felt as strongly as in the obese person's other relationships. A feeling of responsibility to the group and/or the leader is often a most important motive supplied by the group. With some, the group—or individuals in it—presents an opportunity for rivalry, to compete, to see who can lose more weight. For some, it is primarily an opportunity to socialize that they otherwise would not have.

These, and other factors, are operative in the group during a series of regular meetings. Probably the most important factor, effective for the largest number in the group, is that the overweight person is experiencing acceptance and permissiveness—both in the leader and in the group—which she has seldom experienced before in connection with her problem or her efforts to reduce. More often than not, previous efforts to reduce have involved experiences with some demanding and critical authority (whether truly so or whether so seen by the patient makes little difference). Most of our subjects reported previous experiences with a harsh parent, a spouse, a physician, or a friend. In the experience of the overweight person, these individuals often begin as benign, friendly authorities but sooner or later cannot help revealing some mild note of chiding, criticism, or irritation because of the poor results.

It is the acceptance and understanding by the group leader and in the group of the most feeble efforts at dieting—the open, permissive atmosphere in which all share similar troubles—that gives strength and support to the positive side of the overweight person's acutely ambivalent feelings about restraining herself and depriving herself of food and fat.

SUMMARY AND CONCLUSIONS

Three preliminary findings have been presented from results of personality testing of one hundred overweight women in the Herrick obesity project. A large proportion of overweight women were found

to be not anxious or disturbed about themselves, even though they had serious psychologic problems. It was also found that when they were compared with each other, the overweight women differed a great deal in their personality make-up and way of psychologic functioning. When overweight women as a group were compared with other homogeneous groups, it was evident that many shared a characteristic of strength and independence equal to that of the normal individual. It is this characteristic which may be one of the major obstacles to maintaining overweight women on a dietary regimen. It was also concluded that most overweight women are not motivated for psychiatric treatment, individual or group; for them, discussion groups aimed at weight reduction, not psychologic change, must be developed.

It was pointed out that the leader of such a group must be prepared to help members discuss their problems freely and at their level, rather than imposing didactic lectures on the group. Effectiveness of the group can be facilitated by careful structuring of what the members can expect to happen in the group, by setting up a group which is homogeneous in age, socio-economic status, and weight, and by excluding relatives or close friends. The main usefulness of such a group to its members is that it provides a situation relatively free of anxiety and other discomforts in which to share and work out problems related to weight reduction and obtain support in working toward a common goal.

REFERENCES

(1) HATHAWAY, S. R., AND MCKINLEY, J. C.: The Multiphasic Personality Inventory. Manual and Test Materials. Minneapolis: University of Minnesota Press, 1942.

(2) MURRAY, H. A.: Thematic Apperception Test. Cambridge, Mass.: Harvard University Press, 1943.

(3) LAFORGE, R., AND SUCZEK, R. F.: The Interpersonal Dimension of Personality. III. An Interpersonal Check List. To be published.

(4) FREEDMAN, M. B., LEARY, T. F., OSSORIO, A. G., AND COFFEY, H. S.: The interpersonal dimension of personality. J. Personality 20: 143, 1951.

Seminar on Food Poisoning Due to Meat

Meat hygiene was the subject of a special seminar in Copenhagen held in February under the auspices of the World Health Organization's European Regional Office, the Food and Agriculture Organization, and the Danish government.

It is estimated that, from 1945 to 1947, 32 per cent of the outbreaks of food poisoning in the United States were due to meat. In England and Wales, more than 17,000 people are known to have suffered food poisoning of some sort in 1950. Of outbreaks affecting more than one person and where the source of infection was known, 68 per cent were due to meat. An outbreak of food poisoning last summer in Sweden, finally traced to meat, affected more than 7700 persons and claimed 90 victims.

Trichinosis, a parasitic disease usually acquired by eating raw or underdone pork, is probably a worse menace in the U. S. than in any other country. Estimates of the number of persons harboring the parasites that cause this disease vary from 2½ to 30 per cent of the total population.

The need for more public information about the possible dangers of meat contamination was stressed at the seminar. Housewives, as well as professional food handlers, should know the measures needed to prevent spread of disease through meat and meat products. A good way of informing the public, participants felt, might be to give full details on the causes and development of a specific epidemic illness traced to meat.

As an example of such an epidemic, the seminar was told of an outbreak of Salmonella food poisoning in Sweden last summer, in which investigation showed that during a slaughterhouse strike, meat piled up and larger-than-usual quantities had to be handled when it was settled. In addition, hotter-than-average weather placed an overload on refrigeration facilities.

Thus it can be seen that the influence of two environmental factors—strike and weather—means that the exclusively bacteriologic approach to food-borne diseases is out of date. Meat inspectors and epidemiologists must take social, economic, and other environmental factors into account in avoiding outbreaks of illness.

Public campaigns against the eating of raw meat would be useful in combating the spread of a parasitic infection caused by the beef tapeworm. This infection is increasing in many European countries, and meat inspection has failed to reduce its incidence because routine slaughterhouse inspection does not always reveal mild infections in cattle. Inadequate sanitation and the eating of raw meat are considered the two greatest factors in its spread. Improved sewage disposal facilities, such as sand filtration, and education on the need for cooking meat were suggested as ways of controlling it.

The seminar also emphasized the need to keep meat at temperatures low enough to prevent the growth of bacteria. Germs multiply rapidly in the range from 15° to 50°C. (about 60° to 122°F.), and in food-serving establishments, meat should not be kept at this temperature for any length of time.

Participants agreed that it would be said of few countries that they had too much meat inspection, but of very many that they had too little.

THE GROUP APPROACH TO WEIGHT REDUCTION

3. AS THE NUTRITIONIST SEES IT[1]

HELEN E. WALSH[2]

Chief, Nutrition Service, California Department of Public Health, San Francisco

ASSOCIATION with the Herrick project at Berkeley these past three years has been a most stimulating experience for the nutrition staff of the State Department of Public Health. The Chief of the Nutrition Service has had the privilege of working with the administrative staff of the project, as well as serving as leader for a group of teen-agers during the first year. Two other members of the staff have also served as leaders, one during the second year and the other during the third year.

In addition, the nutrition staff was provided the opportunity during the second year of the project to interview all subjects regarding their food practices, attitudes toward food, and the difficulties they encountered in adhering to a low-calorie, low-cholesterol diet.

I would like to share with you these experiences and to acquaint you with some of the problems encountered.

EXPERIENCES AS LEADERS

The three of us who served as group leaders had all completed hospital internships and had varying degrees of hospital and community experiences. Our training and experience in working with the obese individuals had been slanted to individual instruction and classroom teaching. Could we adapt these methods to the group situation? We approached our assignment with certain qualms and feelings of inadequacies.

Our groups varied in size, but the average attendance was ten members per session. A total of sixteen sessions were held. All group members were women or girls. The majority represented that unsuccessful segment of the obese population who try to reduce and fail repeatedly.

We did not structure the sessions. The members of the groups were allowed to talk freely about any subject in which they were interested. The sessions naturally took on the characteristics of discussion groups.

Our role as leaders varied from session to session. When weight loss was general and consistent within the group, the leader was pretty much submerged within the group and served merely as a catalyst. Usually at that time the morale was good, and there was a high degree of optimism. It was interesting to note that when the groups reached plateaus or "slump" periods and their morale was low, there was a tendency to look to the leaders to do something.

Even though the weight losses were not significantly different in the various groups, we felt that we had an advantage over the other leaders because of our status as "nutrition" or "diet" authorities. We were equipped to answer questions regarding dieting and food values as they arose. We were better prepared to help the subjects adapt the diet to their individual preferences within the limitations of the diet. Also, we felt that there was less tendency on the part of the subjects to misrepresent their *actual* dieting experiences.

Perhaps the most difficult problem we faced, which was not peculiar to the nutritionist-led group, was the handling of personalities. We had the vocal member who tended to monopolize the discussion, as well as the member who seldom participated. Knowing that the needs of individuals are expressed in different ways, we were sometimes at a loss to know how best to handle the situation.

[1] Presented at the 36th Annual Meeting of The American Dietetic Association in Los Angeles, on August 27, 1953.

[2] The writer wishes to express appreciation, on behalf of the staff of the Nutrition Department, California Department of Health, to Dr. H. I. Harvey and William D. Simmons for making our participation in the project possible. She is also indebted to Grace Finnegan and Elizabeth Hutson, who served as group leaders, for their assistance in the preparation of this paper.

From our experience, we would suggest that before a nutritionist or dietitian takes on the role of a group leader, she acquaint herself with the theory of the group process and develop some skills in the techniques of group work.

In spite of our qualms and feelings of inadequacies as leaders, we felt that the group situation afforded "something" that resulted in more effective handling of the obese person. In retrospect, this "something" was a combination of factors:

(a) The opportunity the members had to talk and listen to others having the same problem, the same goal, and the same diet.

(b) The influence that the group exerted on individual members in terms of support and competition.

(c) The social situation which allowed the members to develop a better understanding of themselves.

(d) The way in which the group helped individuals with family or personal problems. This pooling of the experiences and knowledge of the members produced a type of assistance that was meaningful to the individual concerned.

(e) The opportunity afforded the leader through observation and listening to achieve a better understanding of these individuals and the many factors which contributed to their problems.

Before leaving the subject of group leadership, I would like to emphasize the need for the leader to dissociate her personal feelings from the success of the group as measured in terms of weight losses. This is not easy, but if the leader is able to minimize her own needs for security and recognition, she will enhance her contribution as a leader.

FOOD PATTERNS OF THE OBESE

The other experience that I would like to share with you was our attempt to learn more about the food patterns of these obese women, their attitudes toward food, and the difficulties they encountered in adhering to a low-calorie, low-cholesterol diet. Such information, we felt, might guide us in designing a reducing diet that might be more socially acceptable to the dieter, and would also be of value to the group leaders.

We decided that the best way to obtain this information was for a nutritionist to interview each subject. Because of the nature of the information we hoped to obtain, we interviewed the subjects prior to the first group session and at the close of the last session. We arranged for each subject to be interviewed by the same nutritionist both times. In seeking full cooperation of the subjects, we assured them that the information would be treated as research data and would in no way influence their participation in the groups.

Our entire staff, with the assistance of two public health analysts, designed the interview schedule. The questions asked were very subjective, and thus much of the information obtained could not be tabulated. However, the following may give you some idea of the type of information our interviews elicited.

The Initial Interview

We interviewed 108 women. The majority were between the ages of twenty and sixty years, only one being in her teens and nine over sixty. Most had been overweight from one to thirty years. The amount of weight most wanted to lose ranged from 20 to 60 lb. There was no obvious relationship between age, period of overweight, or desired amount of weight to be lost.

In answer to a question, "Was weight gain associated with any particular incident?" 34 associated it with pregnancy; 28 with change in economic status or some emotional incident; 18 with illnesses; and the remaining with miscellaneous reasons that could not be classified.

All but 21 subjects reported a family history of obesity.

In attempting to learn why the subjects wanted to lose weight, we found that health reasons were mentioned more frequently than appearance. When tabulated by age, it appeared that in the older group health factors played a bigger part.

Most of the subjects had previously tried dieting for various periods of time. It was surprising, however, to learn that eight of the women had never been on a reducing diet.

In answer to specific questions regarding food patterns, we found that most of the subjects were eating three meals a day and, also, that more were eating between meals than before retiring. A high intake of bread, pastries, and ice cream was reported by most subjects.

These were the main points obtained in our initial interview.

The Final Interview

In the closing interview, which was held at the conclusion of the sixteenth session, 80 subjects were interviewed.

Rather than give a statistical interpretation of the data, I thought you might be interested in a description of an imaginary person who would represent the median of the group.

This imaginary person was 41 years of age, weighing 187 lb. and needing to lose 57 lb. She had lost 20 lb. during the project. She was average in height—5 ft. 4 in. tall—and of medium frame. She did not smoke and drank more tea or coffee than before going on the diet. She planned to continue the diet but with modification; in particular, the addition of eggs. She attended fifteen of the sixteen meetings. She gave both health and appearance as the reasons for wanting to lose weight. She ate regu-

larly between meals but seldom before retiring. She had difficulty with the diet because of change or elimination of foods from her previous eating pattern. She still had a terrific "yen" for certain foods.

CONCLUSIONS

Although we uncovered no new ideas about the food practices of the obese woman, we feel that the interview experience was valuable for both the subject and the interviewer. It served to orient the subject further to the research project and enhanced her feelings of being a part of the study. For the nutritionist, the experience afforded an opportunity to gain further insight into the problems of the obese woman.

We are encouraged with the possibilities that the group approach offers us as nutritionists. Every nutritionist and dietitian has experienced, I am sure, dissatisfaction with her results in working with obese individuals. Now perhaps we have within our reach a method that may prove to be more effective.

Also, I see this pattern of working with groups as an excellent approach to the preventive aspect of the problem of obesity. The social situation that the group provides may serve to interest potentially obese individuals in joining groups to learn more about maintaining their weight. Dietitians and nutritionists, in cooperation with the local medical society and health department, could assume this responsibility as a contribution to public health.

It is true that much more study must be given to the approach, but I feel confident that the scientific attention it is receiving at Herrick Memorial Hospital may provide us with some of the answers.

BIOGRAPHICAL NOTES FROM THE HISTORY OF NUTRITION

John J. Abel—May 19, 1857–May 26, 1938

Epinephrine, often popularly referred to by its trade name, adrenalin, was the first hormone to be chemically identified. Major credit for this achievement goes to John J. Abel who, in 1898, isolated an active substance from the suprarenal medulla and called it epinephrine. He spent ten years of research on the adrenal gland hormone. However, his preparation of epinephrine was not the pure hormone; it was the benzoyl derivative of it. To another investigator went the credit for preparing the crystalline hormone but Abel's name for it was retained. Dr. Abel contributed much to endocrine research. He achieved the isolation of crystalline insulin and determined its chemical composition and properties (1925–28), and he presented evidence that the insulin effect was dependent on the action of crystalline insulin.

Although Dr. Abel's major investigations were in the field of pharmacology, he also made outstanding contributions to biochemistry and thus to the science of nutrition. He was the first to isolate an amino acid from blood by use of the vividiffusion apparatus (1912–14). He also was one of the early workers in plasmapheresis and the regeneration of plasma proteins, the study of various bodies of protein structure, and histamine-like bodies in the blood.

The *Journal of Experimental Medicine*, first issued in 1896, was suggested by Professor Abel, as was the *Journal of Biological Chemistry* (1905) for which he was joint editor with Dr. C. A. Herber. Abel was the one who sent out the letter in 1906 calling scientists to the meeting which resulted in the formation of the American Society of Biological Chemists. He also helped to establish the American Society of Pharmacology and Experimental Therapeutics (1909) and to found the *Journal* of that society.

John Jacob Abel was born near Cleveland, May 19, 1857. His family had come from the Rhine Valley to this country. Abel received his Ph.B. from the University of Michigan in 1883 and then taught Latin and science in the high school at La Porte, Indiana. This was where he met his wife, Mary Hinman. After a year of graduate study at Johns Hopkins University, Abel and his wife went to Europe where he spent seven years, mainly at German universities under leaders in biochemistry, physiology, and pharmacology, and obtained his M.D. at Strassburg. Soon after his return to the United States he went to Johns Hopkins University Medical School (1893) as Professor of Pharmacology and remained there active in research until his death on May 26, 1938.

Dr. Abel was an earnest, kindly man, with a brilliant mind and the true spirit of the investigator. His students learned to search for truth in the laboratory through the experimental approach. The noon lunch hour was the time when staff, students, and visitors met together informally to exchange ideas freely, suggest, criticize, and plan research projects.

REFERENCES: Chittenden, R. H.: The First Twenty-Five Years of the American Society of Biological Chemists. New Haven, Connecticut: Am. Soc. Biological Chemists, Inc., 1945, pp. 9–11. MacNider, W. deB.: John Jacob Abel. Biographical Memoirs, National National Academy of Sciences 24: 231, 1946.

—Contributed by E. Neige Todhunter, Ph.D., Dean, School of Home Economics, University of Alabama, Tuscaloosa.

Vegetables in the Child's Menu at the Hospital[1]

EDNA BROWN SOUTHMAYD, Ph.D., and MASA MARIOKA

Department of Home Economics, University of California, Los Angeles

THE data reported here constitute a portion of those collected at the University of California, Los Angeles in a study to better understand and handle the problem of the high rate of rejection of vegetables by three- and four-year-old children. The tabulated data indicate that reaction to some vegetables is so adverse that, since they are commonly served to children in hospitals, this report would be pertinent and of interest to hospital dietitians.

METHODS

Observations were made of 14 three-year-olds and 15 four-year-olds at the University Nursery School. Twelve cooked vegetables and twelve raw vegetables and fruits served as finger-foods were tested. Each was served as a part of the customary nursery school noon menu of meat, potato, cooked vegetable, a finger-food of vegetable or fruit, quarter slices of bread and butter, milk, and a simple dessert. Menus were prepared to provide pleasing combinations with the test items, and each menu was served twice during the testing period.

The cooked vegetables were cut in bite-size portions, prepared by boiling until tender in salted water, and seasoned with butter. The raw vegetables were cut in wedges or sticks. All were served at the Nursery School at least once before the test began, and most of them were among those commonly included in the menus. Because this study was set up particularly to test differences in reaction to foods of different colors (to be reported later), only three vegetables of each color were included.

Portion sizes were selected after preliminary observation, so that all of the children might be expected to eat one portion with seconds always available. A portion of each food on the day's menu was offered to the child, but he had the privilege of leaving any that he did not wish to eat.

The teachers, accustomed to giving some verbal encouragement to the children, refrained entirely during this period in order to avoid the effect of possible inconsistencies of this practice.

Data were recorded on a simple record form shown in Figure 1. A chart was made on graph paper so that the data could be taken down in code. (Tabular form would serve as well.) It was fast and not disturbing to the children. The child's initials appear on the left, and there are three columns for each food tested daily—the first for food rejected, the second for food accepted and eaten, the third for second helpings. The data were recorded by a pencil dot in the appropriate column. Thus findings could be quickly tabulated, and the results were obvious without involved calculations.

RESULTS

The data in Table 1 are expressed in terms of percentage of children who rejected the foods and represent an average for both age groups. Absences (18 per cent of all days) undoubtedly caused some weighting of these averages. In a preliminary test of the recording device described above, an attempt was made to indicate when a food was tasted only. This proved very difficult, however, and it was the observation of the investigator that one taste, only, was equivalent to a refusal in terms of expressing rejection of the food.

Cooked parsnips, rutabagas, and turnips had understandably high rejections. All food service people have found poor acceptance of these vegetables among urban American populations of any age level. However, rejections were 82 per cent for cooked tomatoes, 69 per cent for spinach, and 59 per cent for green beans, vegetables which are included in almost all hospital menus. Only peas and carrots, of the cooked vegetables, were accepted by more than 50 per cent of the children.

The reaction of these same children to the raw vegetables and fruits served as finger-foods is presented in the second part of Table 1. Note the difference in consumption compared with that of

[1]Data obtained by Masa Marioka in partial fulfillment of the requirements for the degree of Master of Science. Presented at the 36th Annual Meeting of The American Dietetic Association in Los Angeles on August 27, 1953.

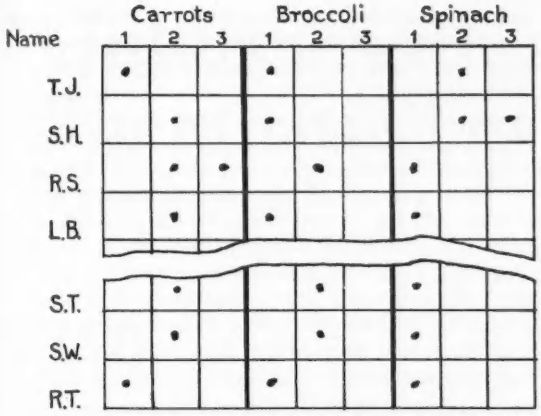


FIG. 1. *Form for recording likes and dislikes. Scale of 1 to 3 was used: 1 indicating food rejected; 2 for food accepted; and 3 for food when second helpings were taken.*

cooked vegetables: 17 per cent rejection of raw carrots against 49 per cent for the cooked ones, only 30 per cent rejection of raw celery, and 50 to 60 per cent for the raw cabbage and cauliflower. Furthermore, ten of the fifteen three-year-olds refused more than 50 per cent of the cooked vegetables offered, whereas only four refused more than 50 per cent of the raw finger-foods. On an over-all basis, there was a 71 per cent rejection of cooked vegetables, but only 35 per cent for raw vegetable and fruit finger-foods.

DISCUSSION

It would appear, therefore, that if this group of children were hospitalized, one might take advantage of the preferences shown by serving more of the finger-foods and fewer of the cooked vegetables. The coefficient of digestibility might be slightly less, but the quantity of nutrients absorbed would be greater because of increased consumption. Foods refused by more than 60 per cent of the children would be of little nutritional value and could only be offered as an educational experience.

In the modern hospital, the underlying philosophy is to do everything to make ill people as comfortable and free of the irritating and the unfamiliar as possible, while still carrying out the therapy. No attempt is usually made to make hospitalization a learning situation except when it is a part of the therapy, as in the case of diabetes. One might even question whether education in the area of diet is wise under the unusual conditions of hospitalization.

Furthermore, the average stay of children in the hospital is estimated to be seven days. Surely, they can be adequately fed for that period without being faced with foods which are displeasing or unfamiliar to them. Of course, food they don't eat will not hasten their recovery. If peas and broccoli were the only highly accepted vegetables, they might appear

TABLE 1

Percentage of children rejecting vegetables and fruits

FOOD	PERCENTAGE OF CHILDREN
Cooked Vegetables	
Onions	89
Parsnips	84
Red cabbage	83
Tomatoes	82
Yellow squash	79
Rutabagas	78
Turnips	74
Spinach	69
Beets	60
Green beans	59
Carrots	49
Peas	44
Raw Vegetables and Fruits Served as Finger-Foods	
Radishes	73
Rutabaga	69
Cauliflower	60
Red cabbage	57
Green cabbage	49
Celery hearts	31
Pascal celery	29
Carrots	17
Orange	13
Pear	10
Red apple	7
Green apple	4

on the menu more than once in a seven-day period. On some days the preferred finger-foods might be served as the main vegetable of the meal rather than in garnish-size portions in addition to the cooked vegetables, as is common practice. Although it has been observed that during illness children sometimes seem too fatigued to chew (1), records of adverse digestive effects from the use of raw vegetables and fruits by children of this age are not found in the literature.

We have studied only one population, our own. These children were not selected as a sample of all three- and four-year-old children. Each population of children undoubtedly would have some different choices, due to cultural, economic, and geographic backgrounds. The data, however, suggest the possible need for hospital records of the acceptability of vegetables and fruits so that any which will not be acceptable to a high proportion of the children may be avoided. All dietitians observe likes and dislikes, but specific data are more convincing; they were to our staff. By using the device described above, the making and interpretation of records of the reaction of the children to foods, as shown by checking the returned trays, would not be time-consuming. A cooperative project between the dietitian and nurse might be a part of the joint diet planning recommended by Ylvisaker (1).

It seems possible that the policy of serving a limited variety of only the most highly accepted

items of food might have some advantages for hospital menu-planning in general. How often are the items which are presented to patients influenced by the varietal demands of the resident staff who are also served from the hospital kitchen? As a student, I was taught to plan a pleasing variety for a five-week period. Obviously, that was primarily for staff, secondarily for patients. It provided more variety than was needed for the patients' brief stays, and undoubtedly included some of the "less popular and less familiar foods."

Today more people are coming to hospitals for treatment, but for even briefer stays. The dietitian serves more individuals but has a shorter time to learn their food preferences. The selective menu has solved the problem in some institutions but is not feasible in others because of administrative problems. As to staff menus, more and more of the staff are living outside the hospital and thus are not completely dependent on it for their twenty-one meals each week. Also, the cafeteria, at which additional variety can be offered the staff, has largely supplanted the single-menu service. These facts have already simplified the problems of coordinating staff and patient menus and permit greater consideration of the patients' requirements and preferences.

The policy of fewer items in the hospital kitchen's repertoire also means fewer items for cooks and kitchen employees to learn to prepare to perfection. This policy is not new in food service. Restaurants are tending more and more to limit their selection to foods of high acceptability. To the dietitian, this plan could free many hours formerly spent in planning numerous combinations for greater study of the patients' needs and preferences, direction of kitchen operations, education of those patients who must carry out therapeutic diets after hospitalization, and the multitude of things for which there is never enough time. Would fewer and more frequently repeated items on the hospital menu result in better food service as well as better nourished patients?

REFERENCE

(1) YLVISAKER, E. N.: Feeding practices for children in Ohio hospitals. J. Am. Dietet. A. 29: 454, 1953.

Herbs and Spices for Low-Sodium Diets

Perhaps your physician has restricted the salt (sodium) in your food. Now's the time to be adventurous and try some of the herbs, spices, and seasonings you may not have used before. Go lightly—a little goes a long way. Enhance the food flavor—don't overwhelm it! Don't limit yourself to one or two—experiment with several. Here are suggestions for a start:

Allspice—ground meats, stews, tomatoes, peaches
Almond Extract—puddings, fruits
Basil—eggs, fish, lamb, ground meats, liver, stews, salads, soups, sauces, fish cocktails
Bay Leaves—meats, stews, poultry, soups, tomatoes
Caraway Seeds—meats, stews, soups, salads, breads, cabbage, asparagus, noodles
Chives—salads, eggs, sauces, soups, meat dishes, vegetables
Cider Vinegar—salads, vegetables, sauces
Cinnamon—fruits (especially apples), breads, pie crust
Curry Powder—meats (especially lamb), chicken, fish, tomatoes, tomato soup
Dill—fish sauces, soups, tomatoes, salads, macaroni
Garlic (not garlic salt)—meats, soups, salads, vegetables, tomatoes
Ginger—chicken, fruits
Lemon Juice—meats, fish, poultry, salads, vegetables
Mace—hot breads
Mustard (dry)—ground meats, salads, sauces
Nutmeg—fruits, cottage cheese, pie crust, potatoes
Onion (not onion salt)—meats, vegetables, salads
Paprika—meats, fish, stews, sauces, soups, vegetables
Parsley—meats, fish, soups, salads, sauces, vegetables
Peppermint Extract—puddings, fruits
Pimiento—salads, vegetables, casserole dishes
Rosemary—chicken, veal, meat loaf, beef, pork, sauces, stuffings, potatoes, peas, Lima beans
Sage—meats, stews, biscuits, tomatoes, green beans
Savory—salads, egg dishes, pork, ground meats, soups, green beans, squash, tomatoes, Lima beans, peas
Thyme—eggs, meats (especially veal, pork), sauces, soups, onions, peas, tomatoes, salads
Turmeric—meats, eggs, fish, sauces, rice

—*From* So You're on a Diet! *published by American Can Company, New York City.*

Children with and without Rheumatic Fever

II. Food Habits[1]

ETHELWYN B. WILCOX, Ph.D., and LEORA S. GALLOWAY[2, 3]

Department of Foods and Nutrition, Utah State Agricultural College, Logan, and Bureau of Human Nutrition and Home Economics, U. S. Department of Agriculture

A GROUP of 131 children five to nineteen years of age, with a history of rheumatic fever was paired as closely as possible in age, sex, and economic status with a group of 131 children without such a history. Both groups were drawn from the Ogden, Utah area. Pertinent data regarding the children studied, collection of the seven-day dietary records, and evaluation of the nutritive intakes have been reported (1). These data showed that in terms of nutrients, the children under ten years of age were consuming diets with average values comparable to the 1948 Recommended Dietary Allowances (2). The children over ten, however, had mean intakes of ascorbic acid below the allowances, and the older girls also had intakes below this standard for all other nutrients except vitamin A and riboflavin. Except for ascorbic acid for both boys and girls and iron and calcium for the girls, 80 per cent or more of the children met at least two-thirds of the allowances.

In this paper the food consumption of these children is reported in terms of kinds and amounts of foods eaten. Some comparison with the diet recommended by Jackson and Kelly (3) for children with rheumatic fever is also made.

[1] This study was a part of the Western Regional Research Project on the Nutritional Status of Population Groups in a Selected Area of Utah under the direction of the Utah Agricultural Experiment Station. It was financed in part from funds appropriated under the Research and Marketing Act of 1946. The cooperation and assistance of the Bureau of Human Nutrition and Home Economics and of the Utah State Department of Health are acknowledged.

[2] Assigned to Utah State Agricultural College.

[3] The authors express their appreciation to Dr. Eugene H. Smith (now deceased) who, as Head of the Rheumatic Fever Clinic, supervised the selection of the children who comprised the rheumatic fever group, and to Louise Page and Mary Lundquist, nutritionists, who obtained the dietary records.

AVERAGE DAILY FOOD INTAKE

In Table 1 are presented data on the average daily intake of foods classified according to fifteen categories for children grouped according to rheumatic fever history, sex, and age. The average number of servings per day of the various foods were similar for all children regardless of rheumatic fever status.

The mean daily intake of milk as a beverage amounted to 2 cups or more for all groups; the older boys consumed 3 cups. The boys were consuming slightly more milk than the girls with differences in intakes between the thirteen- to nineteen-year-olds being the greatest. As indicated in the earlier report (1), many of the adolescent girls had low intakes of calcium, which reflected the smaller consumption of milk. Of the thirteen- to eighteen-year-old girls in the rheumatic fever and non-rheumatic groups, 48 and 23 per cent respectively had intakes of calcium which were less than two-thirds of the recommended allowance. However, consumption of milk was actually greater, for the children of both groups averaged, in addition to milk as a beverage, 0.3 to 0.5 daily servings of ice cream, 0.2 to 0.3 servings of cheese, and 0.05 to 0.3 servings of pudding made with milk.

Similar intakes of many of the other foods were noted for the boys and girls in the two younger age groups. In general, the adolescent boys had somewhat higher intakes of the other foods than the girls of the same age (Table 1). The consumption of sweets—candy; soft drinks; sugar, jam, and jelly; and desserts—was higher than it should have been for a well balanced diet for all groups of children. If the use of sweets had been reduced and the use of vegetables, citrus fruits and tomatoes, milk, and eggs were increased, low intakes of calcium, iron, thiamine, and ascorbic acid (1) of the older girls of both groups would have been corrected. These changes would also have increased the caloric,

TABLE 1

Average daily intake of various food groups

AGE	NUMBER	MILK	EGGS	MEAT, FISH, AND POULTRY	OTHER PROTEIN FOODS*	VEGETABLES			FRUITS		GRAIN PRODUCTS		BUTTER OR MARGARINE	CANDY, SOFT DRINKS	JAM, JELLY, SUGAR	DESSERTS†
						Potatoes	Green and yellow	Other	Citrus fruits and tomato	Other	Bread	Cereal				
Rheumatic Fever Group																
years		*cups*	*no.*	*servings*	*servings*	*servings*	*servings*	*servings*	*servings*	*servings*	*slices*	*servings*	*tsp.*	*servings*	*Tbsp.*	*servings*
Boys																
5–9	21	2.7	0.53	1.0	0.40	0.77	0.58	0.50	0.75	1.1	3.6	1.0	2.8	0.57	1.3	1.3
10–12	14	2.6	0.56	1.1	0.45	0.82	0.56	0.61	0.86	1.6	4.0	1.2	2.0	0.71	1.4	1.2
13–19	27	3.2	0.66	1.4	0.82	1.28	0.68	0.46	0.89	1.6	5.5	1.2	2.7	1.31	2.1	1.8
Girls																
5–9	18	2.4	0.44	1.0	0.27	0.66	0.42	0.36	0.89	0.8	2.8	0.8	1.9	0.68	1.5	1.1
10–12	16	2.5	0.54	0.9	0.58	0.74	0.51	0.26	0.69	1.3	3.8	1.0	2.9	0.74	1.2	1.5
13–18	35	2.0	0.46	1.0	0.59	0.80	0.42	0.50	0.81	1.2	3.5	0.8	2.1	0.80	0.8	1.0
Non-Rheumatic Group																
Boys																
5–9	21	2.6	0.42	1.0	0.45	0.77	0.56	0.42	0.72	1.1	3.4	1.3	3.4	0.67	1.7	1.4
10–12	14	2.6	0.54	1.5	0.73	0.81	0.65	0.48	0.86	1.3	4.0	1.2	2.9	0.86	1.4	1.6
13–19	27	3.3	0.53	1.6	0.73	1.07	0.52	0.49	0.64	1.2	5.3	1.2	3.1	0.80	1.8	2.1
Girls																
5–9	18	2.2	0.48	1.1	0.41	0.66	0.50	0.53	0.68	0.9	3.3	0.8	2.2	0.64	1.1	1.3
10–12	16	2.4	0.56	1.3	0.66	0.96	0.57	0.38	0.56	0.9	4.2	1.0	2.9	0.69	1.6	1.7
13–18	35	2.4	0.39	1.1	0.48	0.98	0.50	0.51	0.63	1.0	3.6	1.0	2.1	0.86	1.3	1.3

* Cheese, legumes, peanut butter.

† Cake, pie, pudding, ice cream.

protein, and niacin intake of the older girls in the rheumatic fever group and the ascorbic acid content of the older boys' diets. The nutritive value of the boys' diets did not appear to be influenced as much by the high intake of sweets since their total intake of all foods was much greater than that of the girls.

Servings of citrus fruits and tomatoes did not equal one per day except for the youngest girls in the rheumatic fever group. Increased use of these foods would have avoided the low ascorbic acid intake for most of the groups. Fourteen to 63 per cent of the children were consuming less ascorbic acid than two-thirds of the recommended allowances for the various age groups (2).

Since this study was made during the tomato-growing season and Ogden is located in an area where tomatoes are grown commercially and in many home gardens, it was of interest to calculate the intake of tomatoes separately. The boys and girls in the rheumatic fever group had 0.4 to 0.6 and 0.3 to 0.6 daily servings, respectively, while both boys and girls in the non-rheumatic group averaged 0.4 to 0.5 servings. In general, differences between age groups were slight. More use could have been made of tomatoes. Other ascorbic-acid-rich foods which were in season and in abundance while this study was being made were cabbage, green peppers, and cantaloupe.

Total consumption of fruits and vegetables was fairly good. The boys of both groups averaged (according to increasing age group) 3.6, 4.3, and 4.4 servings per day, of fruits and vegetables combined, and the girls 3.2, 3.4, and 3.7 servings. However, green and yellow vegetables and ascorbic-acid-rich fruits and vegetables were not used with any regularity by many of the children.

The extent of the use of whole grain cereals was of interest. All groups of children used similar amounts of whole wheat bread (0.2 to 0.7 servings per day). Although the use of whole wheat bread was limited, all white bread was enriched. The boys used slightly more whole grain cereal than the girls (0.3 to 0.7 for the boys and 0.3 to 0.5 servings per day for the girls).

The intakes of certain foods at various levels are given in Table 2. Although the average daily intake of milk for all children was slightly over 2 cups, many were not getting that amount. The adolescent girls in the rheumatic fever group had the poorest intake of milk, with 57 per cent receiving less than 2 cups. For the younger girls in both groups, the percentage using less than 2 cups of milk ranged from 31 to 38, while the comparable percentage range for boys was only 14 to 29. More boys than girls in both groups of children were consuming 3 cups or more of milk. Likewise, more of the older children used this much milk than did the younger children.

In the rheumatic fever group, the percentage of children who were eating from 0.8 to more than one egg a day varied from 11 for the five- to nine-year-old girls to 30 for the older boys. The percentage of children in the rheumatic fever groups who used less than 3 eggs per week (0.4 per day) were similar (38 to 50 per cent for the girls and 33 to 43 per cent

TABLE 2

Distribution of daily intake for certain food groups

FOOD	5–9 YEARS				10–12 YEARS				13–19 YEARS			
	Rheumatic fever group		Control group		Rheumatic fever group		Control group		Rheumatic fever group		Control group	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Milk												
	%	%	%	%	%	%	%	%	%	%	%	%
Under 1 cup	5	0	5	6	7	0	7	6	4	23	4	14
1 cup	24	33	9	28	22	38	7	31	15	34	15	17
2 cups	33	50	57	55	50	38	60	44	22	17	30	37
3 cups	24	17	29	11	7	19	26	12	26	20	22	20
4 cups and over	14	0	0	0	14	6	0	6	33	6	30	11
Eggs												
Under 0.4	33	50	52	17	43	38	26	50	37	43	41	51
0.4–0.7	48	39	33	72	29	44	67	19	33	43	33	40
0.8–1.0	14	11	14	11	14	12	7	12	11	14	18	6
1.1 and over	5	0	0	0	14	6	0	19	19	0	7	3
Meat												
Under 0.5 serving	9	6	5	11	21	6	20	0	7	14	0	6
0.5–0.9 serving	43	39	33	39	29	50	20	12	11	27	15	40
1.0–1.4 servings	29	50	48	22	36	44	47	56	37	40	33	23
1.5–1.9 servings	14	6	14	28	14	0	13	19	22	17	22	23
2.0 servings and over	5	0	0	0	0	0	0	12	22	0	30	9
Meat plus Other Protein Foods*												
Under 0.5 serving	5	0	5	0	0	0	0	0	0	0	0	3
0.5–0.9 serving	9	17	9	28	21	12	7	6	7	20	0	6
1.0–1.4 servings	43	61	48	28	21	44	7	19	7	26	15	29
1.5–1.9 servings	38	22	24	22	29	25	26	44	18	37	11	40
2.0 servings and over	5	0	14	22	29	19	60	31	67	17	74	23

* Cheese, legumes, peanut butter.

for the boys). Intakes of eggs for the children in the non-rheumatic group were similar.

From 18 to 56 per cent of the rheumatic fever group were eating less than one serving of meat daily, and 12 to 50 per cent of the non-rheumatic group. However, when the number of servings of meat, meat products, and other protein foods were added together, the percentage of children who were getting less than one serving was decreased to a range of 7 to 21 for the rheumatic fever groups and 0 to 28 for the non-rheumatic groups.

It is recognized that the dietary patterns of the children who had had rheumatic fever may have been modified as a result of advice from the physician when they had gone to the clinic for treatment. Their diet prior to treatment may have been poorer than those reported here. Their diets at the time of the study were not, however, superior to those of the children in the non-rheumatic groups.

NUTRITIVE CONTRIBUTION OF VARIOUS FOOD GROUPS

A somewhat different evaluation of the diets was made by determining the percentage contribution of certain food groups to the total nutritive value of each diet. Figure 1 shows this comparison for: milk, when used as a beverage; meat, fish, and poultry; eggs, when eaten as such; bread, as slices of bread; citrus fruits and tomatoes; potatoes; green and yellow vegetables; and vegetables other than tomatoes and potatoes. Results for the boys and girls were combined, since the percentages of each nutrient obtained from the various food groups were about the same for both sexes and the various age groups, even though the boys ate larger quantities. Milk furnished a higher percentage of calories, calcium, thiamine, and riboflavin than any other food group. Similar amounts of protein were supplied by milk and by meat. More iron and niacin were furnished by meat than by any other food group. The use of liver by several boys in the non-rheumatic group increased the iron and vitamin A contributions from meat above those for the rheumatic fever group.

Bread, which was enriched or whole wheat, was an important source of iron, thiamine, riboflavin, and niacin. Citrus fruits and tomatoes furnished 37 to 40 per cent of the ascorbic acid, while potatoes contributed 14 to 16 per cent. Green and yellow vegetables and milk also contributed 12 per cent, each, of this vitamin, as well as almost one-fourth

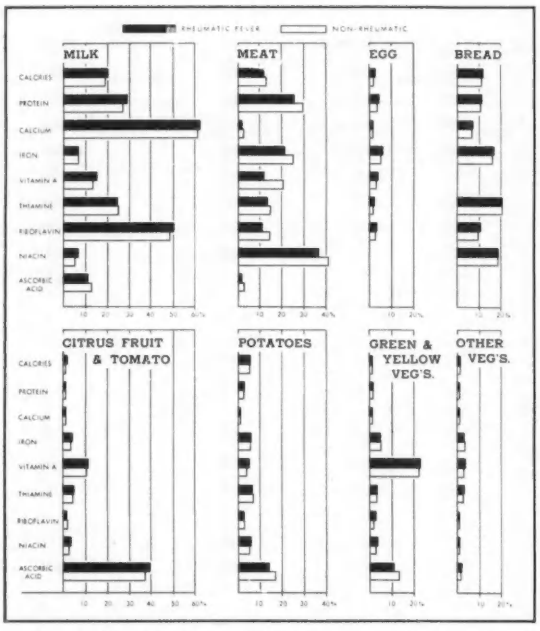


FIG. 1. *Percentage contribution of various food groups to the diets of children.*

of the total vitamin A in the diets. All vegetables, including tomatoes and potatoes, and all fruits, including citrus fruit, supplied one-half of the dietary vitamin A. The rest came from animal sources or fortified margarine.

Similar percentage contributions of these food groups to the nutritive quality of diets were observed by Chalmers *et al.* (4) in their study of the diets of university students.

USE OF HOME-PRODUCED OR PROCESSED FOODS

Fifty-eight per cent of the children in the rheumatic fever group and 76 per cent in the non-rheumatic group indicated that their parents raised a garden and/or fruit trees. The use of more vegetables from the home garden or from the abundant supply on the market during the study would have improved the diets of many of these children. Nearly all of the families of both groups indicated that they canned some fruits and vegetables, and/or made jellies and jams (89 and 91 per cent for the rheumatic fever and non-rheumatic groups, respectively). Approximately one-fourth of the families of both groups of children froze fruits, vegetables, and/or meat for later use.

FOOD DISLIKES

Food dislikes were recorded for each child. Cabbage, spinach, and peas were disliked by 9 to 12 per cent in both the rheumatic fever and non-rheumatic groups. Ten per cent of the rheumatic fever group also indicated a dislike for most vegetables and for eggs, while liver was disliked by 10 per cent of the non-rheumatic children. Children of one family did not have the same food dislikes.

COMPARISON WITH SUGGESTED FOOD PATTERNS

Suggestions for an adequate diet in terms of the foods as we eat them have been made by grouping the more important foods into seven groups which are known as the revised Basic 7 (5) with another group of "energy" foods outside the seven. Jackson and Kelly (3) have recommended for children who have rheumatic fever a diet which is in many respects similar to the Basic 7, although it is more liberal in the use of milk and eggs. They recommended the daily use of 1 qt. milk; one or two eggs; one serving of meat, fish, chicken, or liver; two servings of vegetables; one orange, apple, or tomato; one other fruit; 1 tsp. cod-liver oil; and 6 tsp. butter or margarine. Other foods, such as bread, cereal, and potatoes, are to be added to satisfy the appetite and maintain correct weight. Cereal is not to be served more than once daily.

In general, the average number of servings of the various food groups for the children in either the rheumatic fever or non-rheumatic groups met or exceeded the Basic 7 suggestions, except for green and yellow vegetables and for citrus fruits and tomatoes. However, the five- to nine-year-old girls in the rheumatic fever group averaged at least one serving of citrus fruits and tomatoes.

When the food intake by the children in the rheumatic fever group was compared with the suggestions of Jackson and Kelly (3), the number of servings of meat, fish, and poultry and of other fruits were adequate, but the intakes of milk, of eggs, of citrus fruits or tomatoes, of vegetables other than potatoes, and of butter or margarine did not conform. As seen in Table 2, relatively few of these children were using 1 to 2 eggs per day and, except for the adolescent boys, few were using the quart of milk. The boys' cereal intake exceeded the suggestions.

A decrease in the use of sweets by both boys and girls and of cereals by boys would have allowed greater use of milk, eggs, vegetables, and citrus fruits or tomatoes.

USE OF SUPPLEMENTS

There were more children in the rheumatic fever group who took vitamin and/or mineral supplements than in the non-rheumatic group (32 vs. 20 per cent). A larger percentage of the youngest group took supplements than did the adolescents (49 vs. 26 per cent for the rheumatic fever group and 25 vs. 18 per cent for the non-rheumatic group).

SUMMARY

Food consumption is reported for 131 children with a history of rheumatic fever and for 131 children

of the same ages without such a medical history.

Average daily intakes of the various foods were similar for both groups. The children in the rheumatic fever group were not using as much milk, eggs, citrus fruits and tomatoes, or vegetables other than potatoes as recommended by Jackson and Kelly (3) for such children.

The mean intake of milk amounted to 2 cups or more for all groups, with the adolescent boys using 3 cups. Fifty-seven per cent of the adolescent girls in the rheumatic fever group used less than 2 cups milk daily. The calcium intake of many of the girls in this group was, therefore, low. Additional milk would have corrected these low values. More boys than girls in both groups were using 3 cups or more of milk.

All groups averaged approximately one or more servings, daily, of meat, poultry, and fish and used three to five eggs per week.

The intake of green and yellow vegetables and of citrus fruits and tomatoes did not each equal one serving per day for most of the children. The ascorbic acid intake would have been improved by a higher intake of tomatoes or citrus fruit, cabbage, and cantaloupe.

Milk furnished a higher percentage of calories, calcium, thiamine, and riboflavin than any other food group and approximately the same amount of protein as meat. Meat furnished more iron and niacin than any other food. Citrus fruit and tomatoes furnished over one-third of the ascorbic acid in the diet; potatoes, one-sixth; green and yellow vegetables, one-tenth; and milk, one-tenth. Vegetables, potatoes, and fruits supplied one-half of the dietary vitamin A.

The foods disliked by the most children were: cabbage, spinach, peas, liver, and eggs.

REFERENCES

(1) Wilcox, E. B., and Galloway, L. S.: Children with and without rheumatic fever. 1. Nutrient intake, physique, and growth. J. Am. Dietet. A. 30: 345, 1954.

(2) Food and Nutrition Board: Recommended Dietary Allowances, Revised. National Research Council Rep. & Circ. Series No. 129, October, 1948.

(3) Jackson, R. L., and Kelly, H. G.: Nutrition in rheumatic fever. J. Am. Dietet. A. 25: 392, 1949.

(4) Chalmers, F. W., Lawless, J. J., and Stregevsky, S.: Nutritional Survey of West Virginia University Students. W. Va. Agric. Exper. Sta. Bull. No. 352 1952.

(5) Bureau of Human Nutrition and Home Economics: National Food Guide. Eat This Way Every Day. U.S.D.A. Pub. No. AIS-53, August, 1946.

The Problem of French Dressing

There are many proverbs concerning foods, and an old Spanish one which no doubt has its equivalent in a dozen languages goes: It takes four men to make a salad: a spendthrift for the oil, a miser for the vinegar, a counselor for the salt, and a madman to mix them.

French dressing is a product that normally requires no cooking, comparatively brief preparation, is used in a single way, and yet has always been one of the most controversial items in the home and professional kitchen. In a single family there may be as many preferences for dressings as there are family members plus the dog. Every hostess nourishes a secret recipe, secret even from her husband. Strong-minded men don chef's hats, chase everyone from the kitchen, set the burglar alarm, and proceed to mix the salad.

How old is the idea of French dressing? The use of olive oil with food was known to ancient civilizations. In the Middle Ages the monks collected and passed on recipes. By the sixteenth century, there were only two popular dressings. These were the Roman *Jus Simplex* and the Grecian "sharp sauce." They were made with oil, wine, or vinegar, and liquaman, a product then used in place of salt.

In the sixteenth century, a different dressing appeared, made from bacon grease and vinegar and believed to be the forerunner of French dressing.

Recently the Olive Oil Institute requested and received from chefs of twelve leading New York restaurants, their French dressing recipes. It was found that the only two ingredients all twelve had in common were oil and salt—the principal ingredient and the most common seasoning! Not even vinegar was used in common.

It would be fruitless to attempt to make any rule whatsoever in the face of our customers' overwhelming demand for variety. You can attend a banquet in a famous Chicago hotel and be served a red, sharp dressing; the following day be served a creamy, pink, sweet dressing aboard a train; and then arrive in another city where you will probably eat whatever the majority of the people in the community have demanded.

The loose term "French dressing" means black to one, white to another, and to others, all the variable shades in between, depending on the taste of the individual in any particular community. The good operator must have, in addition to all of his other attributes, something of the magician about him to come even close to satisfying his customers.—*Excerpts from a talk by John Drew published in Institutions Magazine 33: 165 (November), 1953.*

Developing Criteria for Institution Management Curricula[1]

GRACE M. AUGUSTINE, Ph.D., MARJORIE M. McKINLEY, and MARION D. GALSTER

Department of Institution Management, Iowa State College, Ames

LEADERS in higher education believe that in our democratic society higher education should include both general and specialized education. A general education does not necessarily fit one to meet the economic demands of life efficiently, and an entirely specialized education tends to give a narrow viewpoint which is incompatible with the commonly accepted purposes of education in a democratic society (1–3).

Home economics in most institutions of higher learning serves the three purposes of "educating for personal development, for family living, and for professional specialization" (1). Recognition of the need for evaluation of home economics curricula in higher education has been evidenced by the American Home Economics Association, The American Dietetic Association, and individual institutions.

Fallgatter (4) pointed out that modification of home economics core curricula should be supplemented by a critical review of the professional curricula, with the demands which will be made of graduates in each field of work kept in the forefront. She said that, since a fifth year of carefully supervised work experience is recommended for prospective dietitians, both the college and post-college programs should be evaluated periodically.

SCOPE OF STUDY

The purpose of this study was to define and propose criteria to be considered in planning and evaluating the professional or specialized aspects of institution management curricula. Two major assumptions were made preliminary to the study. First, institution management curricula need to be evaluated. Second, criteria to be used as a basis for evaluating these curricula can be developed from a knowledge of: (a) the responsibilities and duties of persons in the profession; (b) trends in institution management curricula; (c) factors influencing these trends; and (d) recommendations of specialists for developing institution management curricula.

An extensive review of the available literature was made in the areas of management, history of institution management, responsibilities and qualifications of dietitians, and objectives and recommendations for institution management curricula. Data provided by the literature were interpreted and integrated to develop the criteria. Certain limitations are involved in using the literature as a basis for a study of this kind. Authors may tend to stress certain phases of education and training because these are the areas in which institution management graduates have shown the greatest weaknesses in the past, or the authors may have offered or been requested to contribute their thinking in areas in which they were particularly well qualified. An attempt was made to obtain a balanced representation of viewpoints, using the most complete statements with the broadest implications as a guide. Whenever available, the findings of related formal studies were reviewed and integrated in developing the proposed criteria.

Certain commonly used terms required definitions in order to provide a framework of reference as nearly uniform as possible for all readers.

For purposes of this study, institution management curriculum was defined as: all the learning experiences planned by a college or university during undergraduate or graduate work, or by an institution during the dietetic internship for those who plan to become dietitians. An institution management curriculum is generally considered in two parts, one providing general education and the other providing professional or specialized education. The present study was limited to developing criteria for the professional aspects of institution management curricula, although it is recognized that general and professional education cannot be definitely separated since each area contributes to the other.

Criteria were defined as: standards for measuring the degree to which goals or objectives have been attained. In the present study the criteria were

[1] Based on a thesis submitted by Marion Dorothy Galster in partial fulfillment of the requirements for the degree of Master of Science. Received for publication July 9, 1953.

stated in terms of the behavior of a person working in an institution management position, since it seemed necessary to know the ultimate goals toward which the education and training of a student should be directed.

The relationship between the education and training of a student and the actual duties of dietitians is shown schematically in Figure 1. The duties of planning therapeutic and other special diets and teaching nutrition to the public or individual patients—important duties of the hospital dietitian—were not considered in developing the criteria.

It was not within the scope of this study to recommend methods of teaching, subject matter groupings, curriculum development in general, or the relation of general and professional education. No attempt was made to determine course sequence for meeting the criteria, and the criteria were not set up in relation to a specific institution management curriculum.

The criteria developed were classified according to an adaptation of duties of dietitians outlined in a study by the United States Bureau of Labor Statistics and The American Dietetic Association (5) in 1949.

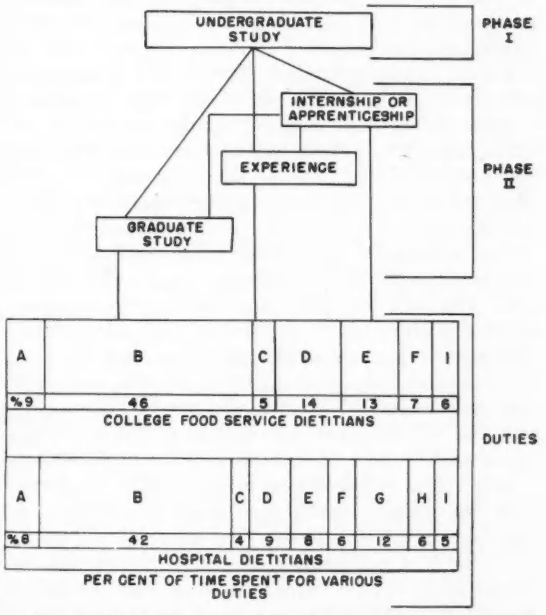

UNDERGRADUATE STUDY
PHASE I
INTERNSHIP OR APPRENTICESHIP
EXPERIENCE
PHASE II
GRADUATE STUDY
A B C D E F I
%9 46 5 14 13 7 6
COLLEGE FOOD SERVICE DIETITIANS
DUTIES
A B C D E F G H I
%8 42 4 9 8 6 12 6 5
HOSPITAL DIETITIANS
PER CENT OF TIME SPENT FOR VARIOUS DUTIES

FIG. 1. *Institution management education, training, and experience in relation to duties of dietitians. Adapted from Economic Status of Dietitians, 1949* (5). LEGEND:

A—Planning menus
B—Training and supervising nonprofessional workers and teaching and supervising students (except dietetic interns)
C—Teaching or supervising other dietitians (including dietetic interns)
D—Buying or requisitioning food, supplies, or equipment
E—Record keeping and preparing reports
F—Planning work schedules and procedures
G—Planning therapeutic and other special diets
H—Teaching nutrition to the public or individual patients
I—Other

These criteria were evaluated by a panel consisting of seven persons active in the field of institution management and two persons in home economics education. In addition, three graduate students in institution management each evaluated two-thirds of the criteria. The members of the panel were asked to evaluate each criterion as to whether it was essential, desirable, or unnecessary for a person with a position in institution management; and whether at the completion of a bachelor's degree, a student should have considerable attainment, moderate attainment, or no attainment. Opportunity was provided for each panel member to make comments or restatements regarding each criterion and to add criteria if they were needed. The members of the panel were selected to help refine the proposed criteria and were not necessarily representative of any particular group.

After the criteria were evaluated by the panel members, the check sheets were summarized, and the criteria were revised on the basis of the responses of the panel members.

MANAGEMENT

A review of the developments in the field of management was pertinent in order to determine some of the basic factors which would apply in all types of work involving the management of resources to produce goods and services. For purposes of this study, the term management was used in its broadest sense, that is, encompassing both the policy-making and executive functions. This definition seemed justified since it was believed that many dietitians have responsibility for the determination of policies as well as their execution.

Scientific management, as proposed by Taylor (6), is characterized by the factual determination of policy, standardization of practice, and control of procedures. Scientific management emphasizes the time element of production and is intended to conserve energy, time, space, and materials. It is recognized that scientific management has made possible the high productive capacity of the present day (7, 8), but currently the principles and rules of scientific management appear to many to be inadequate in light of present knowledge of human relations. In its broader aspects, however, scientific management may be in harmony with the current emphasis on human relations, but Taylor did not emphasize group action as greatly as is now recommended (9).

It is proposed that changes be made with consideration for human behavior and social satisfactions in the work situation. "While management may wish to pursue the logic of efficiency, it must

recognize that the end product may be appreciably modified by the human element of organization" (7).

Current methods recommended for management are characterized by a preventive rather than a corrective approach to problems, and by an emphasis on the psychologic and sociologic aspects of human relations. Management must continue to use an experimental and scientific approach to make the most effective use of all resources.

As usually defined, the functions of management are to: frame the basic policies; create plans for carrying out these policies; create the organizational structure; and operate, maintain, and control the organization at maximum efficiency (10).

INSTITUTION MANAGEMENT HISTORY

Institution management has been defined as the application of the principles of scientific management and the sciences of foods and nutrition to large group feeding (11). It has further been interpreted as, "including in its scope the administration of all aspects of the food and housekeeping services in units larger than those commonly provided for in homes" (12).

The American Dietetic Association, The American Home Economics Association, and other professional groups have worked for the improvement and standardization of educational and training opportunities for dietitians for many years, and several studies have been made which aided the rapid development of curricula for institution management and dietetics.

Early recommendations for institution management preparation emphasized the need for a broad general education, technical training, and experience. The need for internship or apprenticeship opportunities to enable graduates to obtain more technical training and experience before they were employed in full-time positions was recognized, and these training courses were developed at an early date. At present, fifty-eight hospital internships, eight administrative internships, and one food clinic internship are approved by The American Dietetic Association for training dietitians (13). The academic requirements for admission to these approved internships are the same as those for membership in the Association, which is currently accepted in lieu of certification for dietitians (14). The development of these membership requirements has had great influence in the planning of curricula for college and university students preparing to become dietitians.

The findings of early studies conducted by The American Dietetic Association and the American Home Economics Association, and articles written by individuals interested in education and training for dietitians indicated that students graduating from college needed more quantity cookery, institution management, and work in allied technical fields. The importance of the physical and biologic sciences in the thinking of the early dietitians was and still is evident. Science is one of the fundamental areas in the education and training of dietitians. More emphasis than formerly, however, is being placed on the relation of the social sciences and education to personnel management. This trend is apparent in other fields of management as well as in institution management and dietetics.

DIETITIANS

According to The American Dietetic Association, a dietitian is "one who has had college training in the science of nutrition and management and is proficient in the art of feeding individuals and groups" (14).

The first dietitians were employed in hospitals, and the hospital field still remains the largest employer of qualified dietitians. School lunch and college food service were other areas in which dietitians initially found employment. Today, the value of the qualified dietitian has been recognized in many other areas, and dietitians are employed in a variety of other types of food services including industrial and commercial. Both the Veterans Administration and the United States Army now have dietetic internships which have been approved by The American Dietetic Association. Not only has the demand for dietitians increased more rapidly than the supply, but specialization among dietitians has developed.

The responsibilities of dietitians have been classified as administrative, therapeutic, and educational (15). The administrative responsibilities of dietitians have been given as: superivision of plant, purchasing, food production and service, personnel management, and financial management (16). The administrative, therapeutic, and educational aspects are all of major concern to hospital dietitians, although many specialize in only one of these phases. Dietitians in other types of food service are chiefly concerned with the administrative and educational responsibilities.

One of the early studies about the responsibilities of dietitians was made in 1930 at the Rochester Athenaeum and Mechanics Institute to determine the actual work responsibilities of dietitians in hospitals (16). In 1938–39, the Administration Section of The American Dietetic Association conducted an investigation to study hospital dietitians and their jobs. This comprehensive study was reported in detail by Gillam (17) in the JOURNAL in 1940.

In 1949, the United States Bureau of Labor Statistics in cooperation with The American Dietetic Association made a study to determine reasons for the shortage of professional dietitians and to ascertain their economic status. Included in the questionnaire used was a section asking the dietitians to keep a record of their duties for one day in order to de-

termine the relative amount of time spent on various tasks. The answers were summarized for hospital dietitians, nutritionists, college food service dietitians, and college teachers (5). The findings for hospital dietitians and college food service dietitians were of particular interest in the present study, and the division of duties used by the Bureau of Labor Statistics was adapted for use as the basis for the organization of the criteria.

INSTITUTION MANAGEMENT CURRICULA

A review of recommendations for the development of institution management curricula revealed the need for a broad general education combined with specialized education, including the areas of physical and biologic sciences, education, foods and nutrition, and institution management.

A committee of the Professional Education Section of The American Dietetic Association, under the chairmanship of the senior author, conducted a survey in 1942–43 to determine what knowledge and techniques a student was expected to obtain in college and how much training was included in the fifth-year courses. The findings, resulting from responses of fifty-six directors of approved internships, were reported in the JOURNAL in 1944 (18).

A committee of the Professional Education Section later studied the content of many college courses offered for the preparation of students for careers in dietetics and developed objectives to be used as standards for judging courses in institution management. These objectives were to be used at a workshop at the 1944 Annual Meeting of the Association for discussion of desirable class experiences and evaluation methods of presenting these experiences. The objectives were published in a 1944 JOURNAL (19).

At present, The American Dietetic Association is engaged in studying the curricula of the dietetic internships (20). The American Home Economics Association has developed material which is being used in colleges and universities to evaluate the curricula in home economics with particular emphasis on the core curricula (1). Although it is recognized that the technical and scientific education and training stressed in the past is still important, today the problems of working with people and the problems associated with discharging one's responsibilities as a professional person are being emphasized.

PROPOSED CRITERIA

The current problem in institution management curriculum development seems to be one of integrating a broad general education, an education for homemaking, and an education for a professional career. Although the requirements for institution management and dietetic curricula leave little room for electives because of requirements for entrance to internships and the necessity for technical training in many areas, these curricula usually provide a substantial general education (21).

The 161 criteria proposed in this study[2] were developed primarily as a guide for evaluating institution management curricula. An excerpt, detailing only twelve of the criteria, is shown in Table 1. In the original organization of the criteria, each duty was considered separately. In the revision, as a result of the criticism of duplication of criteria under the various duties, each criterion was presented with letters designating the duties to which the behavior suggested in the criterion would apply (see Table 1). The criteria were developed for the following duties:

(a) Planning menus.
(b) Planning work schedules and procedures.
(c) Training and supervising nonprofessional personnel.
(d) Teaching and supervising other dietitians (including dietetic interns).
(e) Buying and requisitioning food, supplies, and equipment.
(f) Keeping records and preparing reports.
(g) Employing dietitians and nonprofessional personnel.
(h) Being responsible for management.
(i) Contributing to the profession and to the community.

Employing dietitians and nonprofessional personnel, being responsible for management, and contributing to the profession and to the community were considered as duties which had probably been included in the classification "other" in Figure 1. The classification, being responsible for management, as used here, refers to the policy-making function of management as it applies to the dietitian. The executive function was covered by the criteria for all other duties.

These criteria were developed to evaluate some aspects of the professional curriculum, but, as has been noted, many qualities desirable or essential to the dietitian are developed in that part of the curriculum designed to provide a general education and preparation for homemaking.

In view of the many additions constantly being suggested for the college curricula to fortify further the general and professional preparation of the student, educators must continually make decisions in regard to the relative importance of various areas of learning. There must be a definition of objectives in regard to the general and specialized aspects of the curriculum.

It is hoped that the criteria developed in this study can be used as a definition of long-range or

[2] A complete listing of the criteria is included in the thesis from which this paper was condensed and may be obtained on interlibrary loan from The Iowa State College Library, Ames.

TABLE 1

*Twelve of the proposed 161 criteria for judging effectiveness of institution management curricula**

NUMBER OF CRITERION	CRITERIA	DUTIES†							
		a	b	c	d	e	f	g	h	i
93	Knows and evaluates sources of supply and uses the most appropriate ones.					x	x		x	
94	Considers advantages and disadvantages of common buying practices as related to the institution, type and extent of available sources of supply, storage available, and correct methods of caring for various items.					x			x	
95	Uses purchase records appropriate to the institution's needs.					x	x		x	
96	Uses some scientific procedure to determine the relative merits of items available for purchase.					x	x		x	
97	Considers important factors in cultivation and production of food.					x			x	
98	Considers the portion yields for various foods in terms of wholesale purchase units and various menu items.	x				x			x	
99	Buys quality and amounts of foods appropriate to the institution and the intended use of the food.					x	x		x	
100	Writes specifications for food appropriate to the institution's policies, needs, and the available market facilities.					x	x		x	
101	Considers storage requirements of various types of foods.	x				x				
102	Makes decisions about buying supplies on the basis of the price-quality-performance relationship.					x	x		x	
103	Buys the quality and amounts of supplies appropriate to the institution and the intended use of the supplies.					x	x		x	
104	Applies a knowledge of various types of construction and materials used for institution equipment.		x	x	x	x			x	

* Complete list of criteria available on interlibrary loan from The Iowa State College Library, Ames.

† For key to code of duties, see text.

ultimate goals for the professional preparation of dietitians, particularly administrative dietitians. They should provide a guide for selection of subject matter to be covered. The distribution of learning experiences needed between the undergraduate and postgraduate phases may be clarified by such a definition of the ultimate goals. In addition, statements of criteria in terms of behavior in the actual working situation may facilitate a critical review of the quality of learning experiences offered.

Probably no one person could fulfill all criteria listed, but the criteria could be used to point up areas of weakness in education, training, or experience, and in the performance of duties by an individual dietitian or group of dietitians. It must be kept in mind that fulfillment of the criteria would depend to some extent on the amount of education, training, and experience each dietitian has. Also, success in meeting the criteria in many cases would depend on the organizational structure of the institution, the amount of authority delegated to the dietitians, and the responsibilities of the dietitians.

Using these criteria as a basis, it should be possible to develop further the most appropriate institution management curricula on both the undergraduate and postgraduate levels. These criteria may likewise be used in relation to vocational guidance and as a reference in the study of delegation of various duties now performed by dietitians.

The present study has in some respects been both exploratory and developmental. The criteria developed and proposed represent an integration of research findings, reports of experiences, and opinions of leaders in the profession. Additional study is needed, however, to refine further the proposed criteria. It is hoped that the criteria developed will become the basis for a study in which the criteria can be validated. And, these criteria should be scrutinized by representative groups of dietitians in various types of food service, by employers of dietitians, and by educators.

REFERENCES

(1) COMMITTEE ON CRITERIA FOR EVALUATING COLLEGE PROGRAMS IN HOME ECONOMICS: Home Economics in Higher Education. Washington, D. C.: Am. Home Economics Assn., 1949.

(2) STODDARD, G. D.: On the Education of Women. New York: Macmillan Co., 1950.

(3) PRESIDENT'S COMMISSION ON HIGHER EDUCATION: Higher Education for American Democracy. Vol. 1. Establishing the Goals. Washington, D. C.: Government Printing Office, 1947.

(4) FALLGATTER, F. A.: Trends in home economics education. J. Am. Dietet. A. 27: 645, 1951.

(5) BUREAU OF LABOR STATISTICS: Economic Status of Dietitians, 1949. Chicago: The Am. Dietetic Assn., 1950.

(6) TAYLOR, F. W.: Scientific Management. Comprising Shop Management, the Principles of Scientific Management. Testimony before the Special House Committee. New York: Harper & Brothers, 1947.

(7) ALBERS, H. H.: Frederick W. Taylor: An evaluation. Current Economic Comment 15: 45 (May), 1953.

(8) BETHEL, L. L., ATWATER, F. S., SMITH, G. H. E., AND STACKMAN, H. A., JR.: Industrial Organization and Management. New York: McGraw-Hill Book Co., 1945.

(9) DIEBOLD, J. T.: Scientific management and human relations. Advanced Management 17: 12 (Feb.), 1952.
(10) FERNSTROM, K. D., ELDER, R. F., FISKE, W. P., SCHAEFER, A. A., AND THRESHER, B. A.: Organization and Management of a Business Enterprise. New York: Harper & Brothers, 1935.
(11) DODGE, Q. O.: Feeding workers for health and efficiency. Industry n.s. 8: 18 (Feb.), 1943.
(12) WEST, B. B., AND WOOD, L.: Food Service in Institutions. 2nd ed. New York: John Wiley & Sons, Inc., 1945.
(13) Dietetic Internships, Approved by the Executive Board. Annual Reports and Proceedings, The Am. Dietetic Assn., 1952–53, pp. 25–28.
(14) Dietetics as a Profession. Chicago: Am. Dietetic Assn., 1951.
(15) CLARKE, H.: The Professional Training of the Hospital Dietitian. New York: Columbia University Bureau of Publications, 1934.
(16) GODFREY, G.: Problems in the college training of the dietitian. J. Am. Dietet. A. 17: 639, 1941.
(17) GILLAM, S. M.: A survey of the hospital dietitian and her job. 1. J. Am. Dietet. A. 16: 485, 1940.
(18) A study of the needs and responsibilities of the student dietitian. J. Am. Dietet. A. 20: 533, 1944.
(19) The content and objectives of college courses: Institution management. J. Am. Dietet. A. 20: 315, 1944.
(20) Projects of Directors of Approved Dietetic Internships. Annual Reports and Proceedings, The Am. Dietetic Assn., 1951–52, p. 34.
(21) MORGAN, A. F.: Professional training the major concern. J. Home Econ. 43: 253, 1951.

IIII

Objections to Fluoridation

So much is being written in favor of fluoridation that it is well to remember the kinds of objections that have been raised and cannot be lightly ignored. These objections are listed for information and consideration, but there is no implication that they necessarily outweigh the proved value of fluoridation in partial control of tooth decay.

1. Fluoridation does not attack the real causes of tooth decay, so far as they are known. Certainly teeth do not decay simply because fluoride is lacking from a water supply. There is a fear that emphasis on fluoridation may delay the research that will be needed for the ultimate control of tooth decay. It may also lessen the health practices that are still needed, such as proper brushing of the teeth and gums.

2. The benefits of fluoridation are statistical. Figures apply to a group, but do not predict what will happen in any individual. It is true that fluorides in water increase the number of people who have no tooth decay; but most of the people in the group still experience some decay. It is not clear whether some of these people still suffer as much decay as they would have without fluoridated water, or whether the reduction in decay is spread uniformly through all the individuals. If there are individuals who do not benefit, is this due to their personal habits, perhaps of eating? For example, calcium renders fluoride insoluble. Whether milk drinking would minimize the benefits of fluoridation would depend on how much milk and water an individual used, and how fluorides actually affect the teeth.

3. Fluoridation benefits only a few persons in the first ten years or more of operation, specifically the children. While benefits are found to extend into adult years, their extent is not definitely known. It has even been suggested that at sixty years of age, the number of useful teeth left in an individual is not affected by using fluoridated water.

4. The cost of installing equipment, and of operating it, varies from one locality to another. This cost is the factor holding back some municipalities at present, even though it is not a large sum compared with many civic expenditures. The cost per head of population is not as true an index as would be the cost per person benefited, but this calculation cannot be made as easily.

5. Fluoridation seems like mass medication, a principle that is unacceptable to some, both among the general public and among professions fearing increased state controls.

6. Since fluoride in gross amounts has long been known as a poison, there is need of assessing the potential hazard of fluoridation. On the basis of *acute* poisoning, the answer is reassuring, since the lethal level is about 40,000 times more than the 1 p.p.m. that is considered the dentally useful level for water supplies. No injurious effects have been noted in the thousands who have been using water fluoridated at around 1 or 2 p.p.m. Unlike chlorine and other compounds, fluorides are not easily smelled or tasted when present in water at dangerous concentrations; therefore, mechanical and human controls must be even better than usual. The problem of assessing potential harm in terms of chronic poisoning is much more difficult. There is a lack of information in this field that suggests the need for more medical investigation than seems to be going on. In the meantime, there is available a procedure that will statistically reduce for many children their experience with tooth decay.—*L. B. Pett, Ph.D., M.D., writing in Canadian Nutrition Notes 9: December, 1953.*

Current Comment

The Dietitian in the Mental Hospital

E. H. CRAWFIS, M.D.[2]

Medical Deputy Director, California Department of Mental Hygiene, Sacramento

Appetite, the intellectualization of hunger, differentiates man from the other animals. It is a complex form of behavior and is a learned response, in contrast to the primitive one of hunger. It has individual as well as racial, familial, and ethnic qualities.

Food may be thought of in two ways. One is from the standpoint of nutrition—the satisfying of the simple, primitive, undirected pangs of hunger. The other is from the standpoint of appetite, which takes into account the psychologic meaning of food to the individual on the basis of his experience. Not only is food essential for the maintenance of a physically sound body, but it is important in the maintenance of emotional stability. The satisfaction derived from eating, the sights and smells of food, the type of food, and the social contacts while eating are important psychologically.

Psychiatric problems are frequently manifested in appetite disturbance. Many people overeat as an expression of insecurity and conflict. Some believe that this accounts for the majority of cases of obesity. All of us have aversions to individual foods and idiosyncrasies to preparation and service. These aversions are exaggerated in psychiatric conditions. They may be expressed as delusions, particularly delusions of poisoning.

In addition to alteration of appetite in mental disturbance, it has been suggested that there may be changes in digestion and absorption of food. It is to be hoped that in the near future, we will have more research in this field.

FOOD AS A PART OF THERAPY

We attempt to sum up all of the psychologic implications of food and appetite by insisting that food is a part of therapy. We do this in an effort to emphasize these elements and to distinguish this function from merely supplying the essential nutrients, or merely satisfying hunger.

The dietitian in the mental hospital is not simply a person who plans meals. She is an administrator of a department which is a part of the treatment program. In addition to being an administrator, she must be a teacher. Cooks, kitchen helpers, dining room assistants, and all personnel working with the preparation and serving of food must be made aware that this is an important part of therapy which frequently sets the whole tone of the patient's adjustment to the hospital.

This important responsibility of food personnel is not easily exercised. An institutional setting has many basic psychologic disadvantages where appetite is concerned. Activities must be routine because of the numbers involved. The mere mechanics of feeding several thousand patients is a challenge. Individual selection of food items and wide range of choice are difficult to provide. Privacy and selection of companions by the patient are rare.

Food is one of our most important social instruments, and mental illness is a disorder involving difficulties in social adjustments. Most of us like to sit down with our family or friends and enjoy a good meal. It stimulates conversation and provides a vehicle for social interchange. Similarly, our patients should have these opportunities for socialization over food, which is prepared and served with these psychologic connotations clearly in mind.

The process of preparation and then service of food must clearly be integrated very carefully or one may nullify the efforts spent on the other phases of therapy. This requires teamwork which must go on three times a day, every day in the year. Yet this very repetition may make it become routine, so that the individuality and variation which all of us require in stimulating our appetites are destroyed. The dietitian must achieve this integration and yet, by her leadership, avoid the dulling effects of routine.

PATIENTS AS MANPOWER

In addition to battling against the straight jacket of the institutional setting and the dulling and deadening of routine, there is another peril in the mental hospital. We are usually much more aware of and much more vocal about this one.

I refer to the problem of employee understaffing. Historically, patients have been utilized to do many of the functions in our hospitals. Food service has been one of these. We have struggled against this and said that it is wrong. However, we cannot turn back the clock and wipe out the usage of the past several centuries overnight. In most of our hospitals we must still depend on the assistance of patients for a significant portion of the manpower.

---

[1] Presented at the 36th Annual Meeting of The American Dietetic Association in Los Angeles, on August 27, 1953.

[2] Present address: Superintendent, Arkansas State Hospital, Little Rock.

Therefore, in addition to a training program for employees, we must devise ways of utilizing this patient manpower so that the experience is therapeutic and rehabilitative. Our employees must not only know the psychologic implications of food preparation and service, but must be trained to work with our patients in such a way that every contact is a positive step in the patient's rehabilitation.

It is for all of these reasons that the role of the dietitian in the mental hospital is an important one; that she is an important member of the treatment team; that there is an opportunity to work with others in the vital task of returning citizens to useful lives in their communities; and that she is the symbol of our statement that "food is therapy."

Role of the Dietetic Service in a Neuropsychiatric Hospital[1]

VERDI MILLER

Area Dietetic Representative, Office of the Area Medical Director, Veterans Administration, San Francisco

Serving food to the mentally ill is, fundamentally, no different from serving food to the physically ill. We start with an adequate diet—regular or house diet, whatever you wish to call it—just as you do in any hospital. Adjustments are made from this to meet the nutritional requirements of the patients as prescribed by the doctor. In our neuropsychiatric hospitals, we serve all types of modified diets.

TRAY SERVICE

Trays are served from ward serving units, using the assembly method type of service. The ward kitchen contains a dish warmer, dishwashing machine, toaster, coffee maker, refrigerator, and griddle. We are installing garbage disposal units where we can. No tray is set up until it is time to start serving. On the top of the dish warmer, we have two shelves over the warming section. There we put out all the cold items, silverware, dishes, paper napkins, and so on. By setting up the tray as we go, no food items sit out long enough to become warm—such as salads—or dry—such as bread. The griddle enables us to cook eggs, hot cakes, French toast, hamburgers, grilled sandwiches, steaks, and similar items just at serving time. The trays are taken to the patients by hospital aides. These arrangements and techniques insure freshly chilled, and wherever possible, freshly cooked items on the tray.

[1] Presented at the 36th Annual Meeting of The American Dietetic Association in Los Angeles, on August 27, 1953.

AMBULATORY SERVICE

Ambulatory patients who do not leave the area of their wards are served in dining rooms adjacent to the ward serving kitchens. The service here is both cafeteria and by waiter. Sometimes such patients are unable to select food from the cafeteria counter and cannot carry a tray. In that case, an assembled tray is carried to the patient.

In these dining rooms, the standard procedure is to have small circular tables seating four or five patients. Such tables give an entirely different appearance and atmosphere to a dining room as compared with large rectangular tables seating from six to eight patients.

Colorful draperies hang at the windows, and there are pictures on the walls. Tablecloths are used in all dining rooms, even in the disturbed wards. When we first talked about using draperies and tablecloths, it was predicted that patients would pull on the draperies and some might even pull the tablecloths off the tables. Occasionally, a patient does tie a knot in one of the draperies, but in six years or so, I have yet to see or hear of a patient pulling a tablecloth off a table. In fact, the patients have reacted very favorably to the use of the tablecloths; there is a noticeable improvement of table manners when they are used.

Some of the hospitals wrap the silverware in napkins, and some let patients pick it up in normal fashion as they go down the cafeteria line. In either case, the silverware is checked by hospital aides before patients leave their table. The more liberal view was adopted by the doctors in some of the hospitals because patients in the course of an active day go to occupational therapy groups, picnic groups, motivation centers, and so on, where they use tools and equipment which could be potentially more harmful than silverware. Their confidence has been justified.

Regular china dishes are used everywhere except on the most disturbed wards, where plastic dishes are used.

In the large cafeterias where ambulatory patients from all wards come, there is the usual cafeteria service. The patient picks up a tray, silverware, dinner plate, vegetable, salad, dessert, bread, and butter. In all except a few wards, sugar shakers, and salt and pepper shakers are put on the tables. Coffee is either carried in a cup or put on the tables in coffee pots. Cream is served either from a cream dispenser or individual creamers are picked up on the cafeteria line.

Standard cafeterias are equipped with a back bar which contains griddles, toasters, and coffee makers. Thus it is possible to give the patients eggs to order. They like this choice and do very well in making their own selection.

Patients are asked to remove various items from their trays when they reach their table, place them

on the table, and put the trays on a side table. After meals, employees clear the tables and put the dining room in order.

One hospital had a ward of seriously deteriorated patients. To help them, a concerted effort was being made to promote a special therapeutic program, one phase of which was habit training in their eating. Before starting, careful thought was given to the selection of all employees assigned to this ward. This included the dietetic employees. The patients have been trained to eat bite-sized pieces of meat instead of ground meat, to pour milk from the ½-pt. containers into glasses or cups, to eat chicken without having it taken off the bones, and to eat without spilling and without being fed. Efforts were made to get away from serving everything on one plate. We wanted to use bread and butter plates, individual salads, and so on. The progress which has been made has been well worth the planning and time spent in understanding guidance.

INDUSTRIAL THERAPY

This briefly takes care of the food preparation and service and brings us to our other responsibilities. More and more, it is becoming apparent that the Dietetic Service has something more to do than simply furnishing food. We must become an actual part of the team of doctors, nurses, hospital aides, Physical Medicine and Rehabilitation Service, Social Service, and all the other services which plan and carry on therapy.

The Dietetic Service is especially active in the industrial therapy program which each hospital conducts. Although we are still in the formative stage of developing our part of this program, we are finding that we do have a place. Some of the hospitals in the Veterans Administration are more active along this line than others, but each is in the midst of some activity. Industrial therapy means the assignment of patients for work participation. Such work is ordered by the doctors on a prescription basis and is done for therapeutic reasons. When properly utilized, these work assignments can help in a small way in solving the patient's conflicts and frustrations, utilizing his assets, building up self-confidence and self-esteem, developing steady work habits, and preparing him for useful work on leaving the hospital. Cooperation of all departments is necessary in order to make a concerted attack on apathy and the preoccupation common among chronic patients and to help rehabilitate the acutely ill patients.

Do you think this therapeutic viewpoint is too ambitious for dietitians to be considering? We don't. We wish to look on work assignments for patients as a therapeutic measure rather than as only a certain number of hours they give in performing a given amount of work.

In order to understand our function as part of the therapeutic team, the first step was working with the Physical Medicine and Rehabilitation Service on a definite program. The available jobs were listed, and a job description was prepared for each proposed position. These job descriptions are now kept up to date or rewritten to fit the needs of a patient. A time schedule is worked out, depending on the number of hours of work the patient can give. The hours may vary from 2 to 6 a day. Most patients work five days a week, although we do have some who work six and a very few who work seven days a week. This represents quite a large section of the patient's day and entails additional responsibility for the dietetic employees who supervise the working patients.

As a result of the deliberations with other services, a procedure for our part of the program was developed. When a patient is assigned to the Dietetic Service, pertinent information is sent from Physical Medicine and Rehabilitation Service to the dietitian. This briefing includes something about the patient's background of work, his educational status, and his attitudes and behaviors.

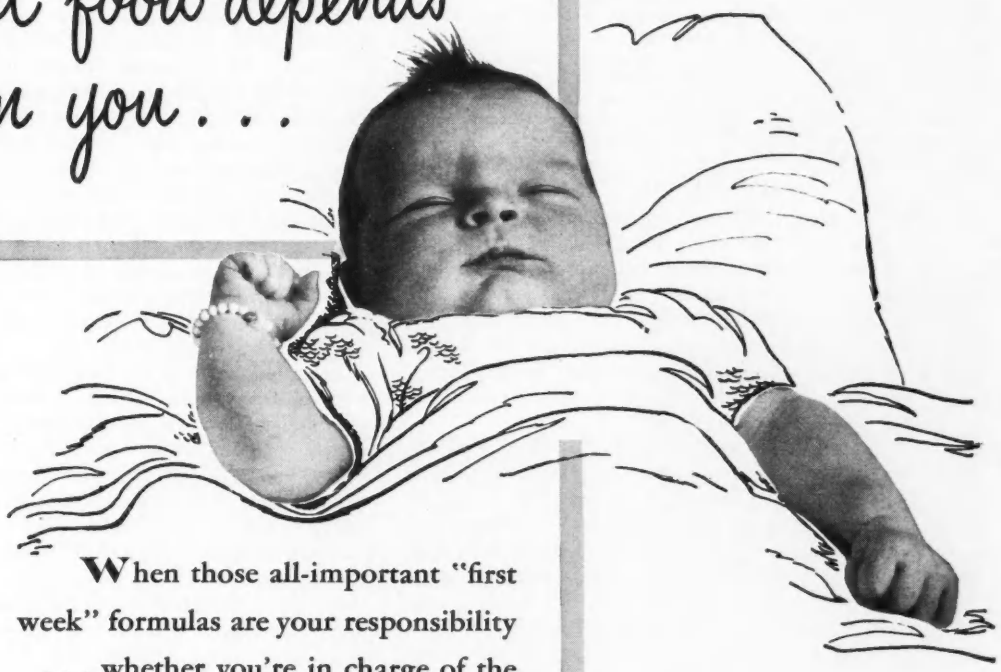
When the patient first reports for work, he is brought over by a person from Physical Medicine and Rehabilitation Service who introduces him to the dietitian who has charge of his assigned section, or to the food service supervisor assigned to his work area. The dietitian talks to him about his work, and gives him a copy of his job description. He is then taken to his special place of work and introduced to the dietetic employee who will supervise him. This employee, with the help of the dietitian and the food service supervisor, is responsible for on-the-job training of the patient. After this introduction, the patient reports to his daily work by himself if possible, or is brought to the department by a hospital aide when necessary. The dietetic employee is then responsible for the patient. In order that patients may be dressed properly for their work, they are provided with the standard white clothing with a blue band, and they come from the wards dressed in these white clothes.

PROGRESS REPORTS

The dietitians generally receive a verbal report on the patient's work daily from the dietetic employee. In some of the hospitals, the person from Physical Medicine and Rehabilitation Service talks to the dietitian daily about the patient's progress and then visits each unit where a patient is assigned.

Regular reports on patients are made weekly, usually in writing. The hospitals using written reports have a special form for this purpose, on which are listed the patient's name, ward number, daily attendance, time scheduled, total time worked per week, and comments on the patient's attitude and work. In the comments section, employees are not allowed to write "all right" or "patient worked today." Instead, they are asked to give such in-

WHEN *his first food depends on you . . .*



When those all-important "first week" formulas are your responsibility . . . whether you're in charge of the formula room or buying for it . . . remember . . . Pet Evaporated Milk, America's *first* evaporated milk, is backed by more years of research, technical "know-how" and experience than any other brand.

America's First Evaporated Milk . . .

PET MILK COMPANY • ST. LOUIS 1, MO.

formation as follows (these are true quotations from actual reports. You will be interested in noting some of the words that are used):

—"Very satisfactory. Is talking with other employees now. Would be able to handle work alone."

—"Tires quite easily, so we have him working sitting down. Says he likes working now."

—"This is his first week of work. Is satisfactory. Not too communicative as yet."

—"Very untidy. Does not get along with others. Group would do better if this patient were not working here."

—"Irregular attendance. Work satisfactory when he comes. Is becoming more sociable with his fellow workers."

—"Dependable. Neat. Good work, and in good contact. We are using him as the 'straw boss' to help with the sanitation problems of other patients—washing of hands before starting work, putting on clean aprons, and keeping uniforms clean. He takes great pride in coming well groomed and in helping others to help themselves."

EMPLOYEE TRAINING

We are proud of our employees when they can make reports of this kind. All of this, of course, is a good deal to ask of them and presented another problem. If we were to be a part of the team in working with patients, all employees would need to be properly oriented. To meet the problem, we have developed a training program for them so that they will be able to do an adequate job in telling us about the patients and making reports.

This program has grown in several ways. At one station, the Physical Medicine and Rehabilitation Service developed a handbook which is required reading for all dietetic employees. The dietitians have also worked out material which is given to employees in scheduled class sessions or in individual counselling.

In each hospital, the Assistant Chief of Nursing Education gives detailed courses for hospital aides on such topics as: patient-employee relations, approach to patients, food patterns of patients, and so on. We approached the Nursing Service to see if the dietetic employees could be included in those classes which would be pertinent, and they were most cooperative. Now dietetic employees are scheduled regularly to attend these classes.

MEETINGS FOR PROFESSIONAL PERSONNEL

The dietitians themselves were not overlooked for class work or lecture sessions. In most of the hospitals, the doctors have periodic meetings with the nurses at which they discuss topics of interest in the care of the neuropsychiatric patient; or the hospitals have outside lecturers and consultants who conduct meetings. The dietitians attend any of these meetings which would be helpful to them in doing a better job.

In each hospital, there are meetings of professional personnel which are designated as "ward group meetings" or "review boards." These meetings are for the purpose of discussing the patients' progress, to determine if a particular patient may go home on a trial visit, or be discharged, or whether other therapeutic steps should be taken. These groups are composed of the doctors, nurses, and members of Social Service and Physical Medicine and Rehabilitation staffs. A dietitian is now included at meetings when they are discussing a patient who has been assigned for work therapy to the Dietetic Service.

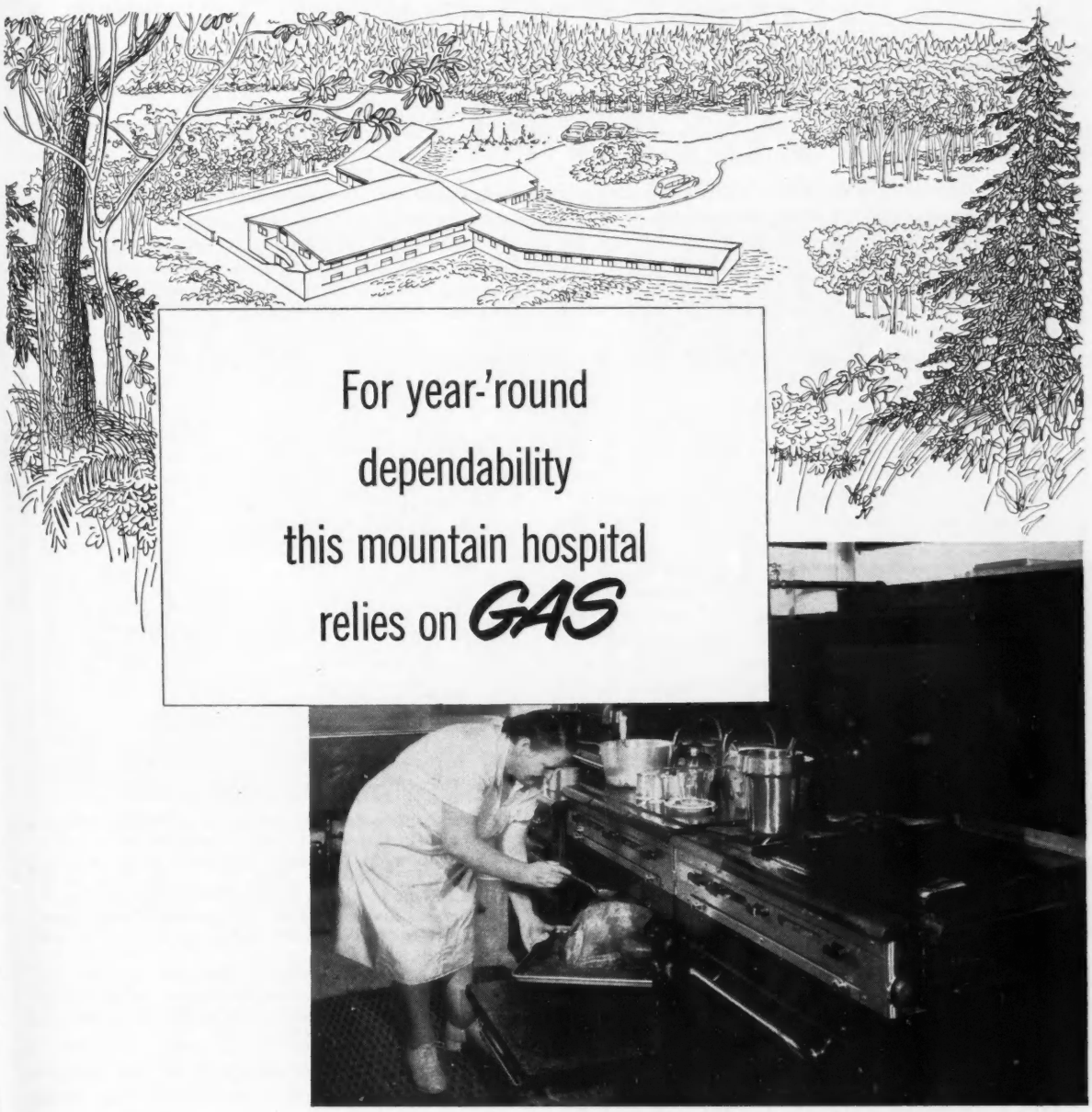
OTHER AVENUES OF TEAM COOPERATION

Another approach has been to include the dietitians in the development of the "Home Care Program." This program was developed for patients with a final diagnosis of psychosis, whose condition has improved and who are allowed a trial visit in the community in homes other than their own. The more careful the planning by the hospital staff, especially by the ward physician and social worker, with the patient and the others concerned and the greater the participation of the patient himself in this planning, the greater is the likelihood that the trial visit will lead to his maximum readjustment to the community and his independence. One social worker is responsible for this program.

As of last July, at one hospital there were thirty-two approved homes with sixty-seven patients, both men and women, assigned to them. The people who accept these patients receive money to cover their board, room, and laundry. When the program was first started, it was found that these people did not always know how to budget this money. Some at first spent money too lavishly. They also needed to understand that the patients were accustomed to a larger lunch than just soup or a salad, and that some patients customarily arose very early in the morning and expected an early breakfast. A patient may also have a special nutritional requirement which should be considered in planning meals. Since a considerable amount of the money was required for food and a number of the other problems concerned eating habits, the dietitians' help was asked. These people now come every other month to the hospital for instructions by a panel consisting of the doctors and representatives from Physical Medicine and Rehabilitation, Nursing, Dietetics, and Social Services.

Sometimes the whole panel participates, but often the entire afternoon is devoted to one service. Specifically, the dietitians provide information on food purchasing, menu planning, and the proper use of home freezers, and help the people to have their names put on mailing lists for nutritional information. They give special instructions whenever a modified diet is needed. They also answer letters and telephone calls between the group meetings.

All of these projects have been realized through discussion, planning, and time. Where once the work was composed of only preparing three meals a day, it is now actually much more.



For year-'round
dependability
this mountain hospital
relies on *GAS*

At the Santa Anita Hospital, located a mile high in the quiet beauty of the San Bernardino Mountains, Gas Cooking gives the food they serve the best nutritional values plus a big extra . . . the taste appeal of appetizing appearance.

In any hospital, but especially one in a location as remote as this, the problem of fuel *supply* is important, also. Here again Gas is the preferred cooking medium, for it is both dependable and economical. The continuous flow of Gas has not been interrupted by the heavy snow storms of the area, and the cost for this steady supply of fuel is no greater than if the hospital were located within the city limits of Los Angeles.

There are many other advantages, too, that make Gas the preferred cooking fuel for all hospital requirements. Gas Cooking is clean, fast, dependable efficient . . . and versatile, to meet the exacting demands of hospital service.

Ask your Food Service Equipment Dealer or Gas Company Representatives for full details on how Gas and Modern Gas Equipment fulfills every hospital cooking need.

AMERICAN GAS ASSOCIATION

420 LEXINGTON AVENUE, NEW YORK 17, NEW YORK

MORE AND MORE . . . THE TREND IS TO GAS FOR COMMERCIAL COOKING

Cooking—A Therapy for the Mentally Ill Patient

MARGARET R. ROSENMEIER

Chief, Dietetic Service, Neuropsychiatric Hospital, Veterans Administration Center, Los Angeles

In September 1953, a cooking clinic was opened at the VA Center Neuropsychiatric Hospital, Los Angeles, as part of the Dietetic Service's program of participation in the treatment of mentally ill patients. The idea of a therapeutic clinic of this kind was not new. The psychiatric staff had been aware of its potential value for some time, as a statement by the Chief, Physical Medicine and Rehabilitation Service, a psychiatrist, indicates:

"The women's service had long recognized the need for some supervised cooking experience as a therapy. Many patients found it difficult to become reintegrated into the home following the prolonged, protected experience of hospital care. It was felt that realistic experience in meal planning and cooking would serve the aims of restoration of attention span and work habits, ego satisfaction in being productive for self and others, and the realistic values of actually learning the techniques which would improve the patient's acceptance at home and aid in rebuilding relationships there. During early discussions, the psychiatrist in charge of the women's service suggested that Occupational Therapy might start such a project. The Dietetic Service also became interested, and the various ideas were brought to my attention. I thought it was entirely appropriate for an interested and forward-looking Dietetic Service to establish such a clinical area, if they were able to provide a suitable space and adequate personnel, and I agreed to join the ward physicians in providing psychiatric instruction and supervision."

The dietetic classroom, a large, airy room adequate in size to accommodate the cooking equipment and provide space for parties and discussions, was chosen as the site for the cooking clinic. As the room had originally been designed as a ward serving and dining unit, the two walls of one corner were covered with a soft yellow glazed tile and the spot seemed ideal for the location of the home-type cooking equipment desired. A school consultant from a local utility company was contacted to help in selecting and arranging the appliances to insure maximum teaching advantage. He planned two complete, modern working areas with the latest equipment installed for greatest convenience, effective use, ease of instruction, and small-group participation. The equipment consisted of: two ranges with double ovens, a dishwasher and garbage disposal unit, an 11-cu.-ft. refrigerator with freezing compartment, a double sink, custom-made metal cabinets which also serve as work tables, two mixers, a deep-fat fryer, a toaster, and the necessary small utensils.

Supervision and direction of the clinic were assigned to the Teaching Dietitian with assistance from representatives of the Dietetic Service and dietetic interns. Members of two groups from the Volunteer Services offered to devote one day a week assisting the Dietetic Service in carrying out the functions of the clinic; other volunteer organizations furnished special food items; and still other groups asked for lists of special equipment they could donate.

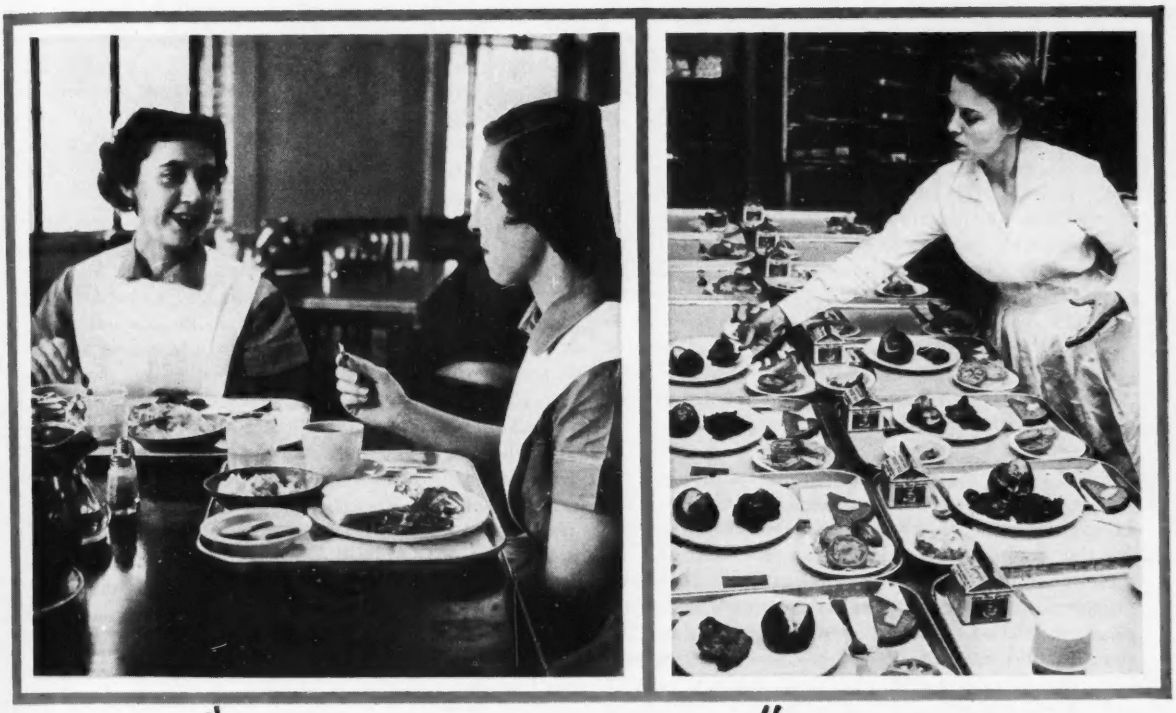
GOALS OF THE CLINIC

During the time the physical plant was being prepared, the Chief, Physical Medicine and Rehabilitation Service, held meetings to set up the aims of the clinic and guides for its management. He describes these aims as follows:

1. Immediate aims.
   a. To encourage the patient to become active and do anything meaningful and purposeful in the clinic, emphasizing a permissive attitude at the more severe levels of illness.
   b. To encourage the patient toward interaction with dietitians, interns, and volunteers in the clinic as a means of resocialization.
   c. To encourage the patient toward interaction with other patients in the clinic and to foster increasing independence in the selection of activities, planning, and working with others.
   d. To teach activities of menu planning, normal nutrition, and many kinds of cooking as a form of "job therapy" as well as resocialization.
2. Long-range aims.
   a. To be a part of the medical team, coordinating all efforts toward returning the patient to the community in the best possible state for integration in a normal life.
   b. To study the role of the program in progress in order to make some contribution to the knowledge of care and treatment of the mentally ill patient in the specific therapeutic sense.

He goes on to say, "In keeping with the concepts of the other clinical areas in our hospital, we agreed on a generally permissive attitude, particularly with the sicker patients. This meant we would always emphasize our acceptance of the patient as she was, and we would try to have her develop her own interests. Permissiveness, too, had to operate within some kind of limits, and we realized that destructive and anti-social conduct could not be accepted in this setting. Authoritarian attitudes and a high degree of direction, as in some examples of teaching, we also recognized to be valuable in some cases, but it was agreed that these approaches were to be used only secondarily to the basic therapeutic orientation. The Ward Psychiatrist, indicated that he desired to have a number of the more regressed patients

BREAK-RESISTANT MELMAC® DINNERWARE



IS AN "HONOR GRAD" AT GRADY!

GRADY MEMORIAL HOSPITAL, ATLANTA, GA.

First admitted for study in 1948 . . . tested alongside conventional types . . . dinnerware made of Melmac molding material demonstrated such a low breakage record, such excellent washability, such lasting good looks – that it's now used exclusively at Grady Memorial Hospital. And few replacements due to breakage have been necessary in over a year!

"Just what the doctor ordered" to perk up languid appetites at many hospitals is Melmac . . . the dinnerware of the tempting colors, the soft, rich luster. And hospital-right Melmac stacks with a whisper, is the biggest boon to hospital Q-U-I-E-T since the advent of rubber tires.

Why, even the help get a lift every time they lift Melmac dinnerware. It's so amazingly light – yet it looks as substantial as a board chairman!

Better ask your supplier about Melmac dinnerware *today* . . . and write us for the illustrated booklet, *Of Melmac Dinnerware.*

AMERICAN Cyanamid COMPANY

PLASTICS AND RESINS DIVISION

30-57 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

In Canada: NORTH AMERICAN CYANAMID LIMITED
Toronto and Montreal

Melmac is a registered trade-mark of American Cyanamid Company, New York 20, N. Y., for Melmac Molding Compounds used in the manufacture of dinnerware and other modern products.

treated in the cooking clinic, and this was quite consistent with the basic planning of aim and attitudes of the hospital.

"After the actual construction of the clinic and before the patients started coming for treatment, I had meetings with a fine and enthusiastic group of volunteers and with members of the Dietetic Service. It was necessary to review the questions of aims and attitudes with some care, both in those early sessions, and subsequently at weekly clinic conferences. To insure the best possible 'therapeutic climate' in the clinic, we had to be certain that everyone working there had a clear notion of the area as a therapy and not just a place to learn to cook. This meant emphasis on the values of the interpersonal relationships, of course, and I feel this clinic really has been blessed from the beginning with a therapeutically oriented staff and volunteer group. It has been gratifying to see the acceptance of the patients, regardless of hostility and bizarre conduct. In all cases the staff and volunteers have accepted these characteristics and continued to work well with the patients."

ACTIVITIES IN THE CLINIC

The clinic meets two mornings a week for 2 hr. Lesson assignments are based on patients' requests. At the beginning of each class, the dietitian or dietetic intern briefly discusses the item to be prepared, stressing particularly its nutritive value, place in the diet, and general preparation procedures. The patients then proceed with the preparation, the dietitians and volunteer workers helping only when requested, for a permissive attitude is stressed at all times. Other employees in the Dietetic Service are also drawn into the clinic picture. On one occasion a baker conducted a class in cake decorating, allowing each patient to try making flowers, birds, edging, and so on. Recipes used in the clinic are duplicated for compiling in cook books; the books—colorful, and of the loose-leaf type—are left in the clinic until the patient is discharged, at which time she takes her book with her.

At Christmas, members of the clinic were hostesses at a party to which more than a hundred persons, including the industrial therapy patients who were working in the Dietetic Service as part of their work therapy (see the preceding article), were invited. The work was divided into committee assignments, the chairman of each committee being a member of the clinic group, with members being selected from the industrial therapy patients, dietitians, dietetic interns, and volunteer workers. From Thanksgiving on, the activities of the clinic were centered around this party. Days were spent in making and elaborately decorating cookies and candy, in writing invitations, and, in general, getting ready for the big occasion. A professional caterer would have been envious of the cookies made by these patients: Santa Claus faces complete with beards of shredded coconut, Christmas trees with festoons of colored sugar, bells decorated in different designs, and stockings laden with toys. At no time during these preparations did interest lag or the patients become bored. They applied themselves quietly and diligently to their assignments, showing much interest in what they made and pride in the results.

At the party, patients greeted the guests and served at the tea table, and one acted as mistress of ceremonies, introducing the entertainment. All these activities and responses of the patients reflect the therapeutic values of this clinic. Behavior disturbances are lessened, withdrawal and apathy are replaced by interest and participation, and there is a constant stress on doing something *with* the patients rather than *for* them.

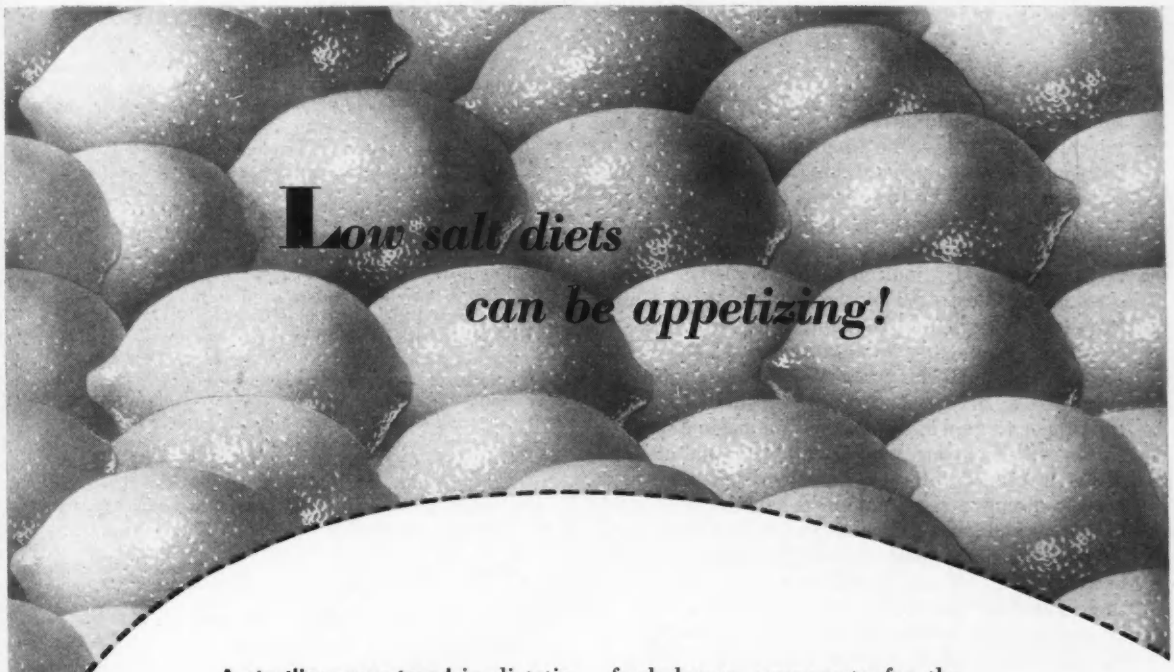
Two industrial therapy patients were assigned to the clinic at the start. One has already left to accept a detail with greater responsibility elsewhere on the Center. The other has improved so markedly that she is now, to quote the Teaching Dietitian, "acting as my assistant." In addition to testing new recipes to make sure they are accurate, instructions explicit, and the results successful, she prepares all visual aids, operates the slide projector, inventories supplies, and so on. The visual aids, consisting of hand-lettered posters and pertinent colored illustrations from magazines mounted on poster papers, are used by the dietitians and interns during class instruction.

The dietetic interns take an active part in all of the training. Each intern spends two weeks in the clinic, assuming entire responsibility for the teaching. Insofar as possible, only one intern is scheduled at a time to allow her maximum teaching experience and patient contact. Since September, ten interns have completed their clinic assignment which is part of their neuropsychiatric affiliation. In addition, two interns have elected training as the subject of their student projects and are using the clinic as the teaching field. Each will have taught ten classes by the time her project is completed. The interest all interns show in the clinic is significant, for it portrays their understanding of and sympathetic attitude toward psychiatric patients, valuable attributes for a dietitian who accepts a position in a mental hospital.

Future plans for the clinic include more formal lessons, as patient reaction permits, on normal nutrition, menu planning for the family, and food buying. One patient has already requested and received special instruction in these subjects. She was ready for discharge and desired this information.

WEEKLY CONFERENCES

The administration of the clinic is not without sound medical assistance and guidance. Weekly con-



Low salt diets can be appetizing!

A startling new trend in dietetic therapy is the fast-increasing use of fresh lemon juice in sodium-restricted diets. The *real* problem of the low sodium diet, according to doctors and nutritionists, is to keep unsalted foods from tasting flat, insipid.

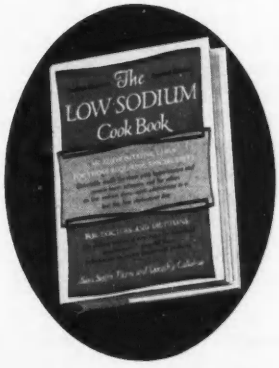
Thousands of patients have found that a good squeeze of fresh lemon juice added at the table transforms tasteless, unsalted foods into tempting, appetizing ones. The sharp tang and aromatic flavor of fresh lemon compensate for the absence of salt. Meats, vegetables, salads—in fact, practically *all* foods—are made more flavorful with tangy, fresh lemon.

Fresh lemon juice has a very favorable sodium-potassium ratio. It has a negligible sodium content (approx. 1 mg per 100 cc), yet is relatively high in potassium (130 mg per 100 cc).

Wherever sodium restriction is advisable, the use of fresh lemon seasoning can be of genuine benefit.

Sunkist ® *fresh lemons*

SPECIAL OFFER! NEW COOK BOOK FOR LOW SODIUM PATIENTS!



"The Low Sodium Cook Book—Special Sunkist Edition," by Alma Smith Payne and Dorothy Callahan, research dietitian, Massachusetts General Hospital, with introduction by Francis L. Chamberlain, M. D., M. Sc. D.

The cook book has 480 pages and contains hundreds of recipes. It is the most authoritative book of its kind. Available now at the special price of only $1.25 *(regular edition $4.00)*. You are invited to write for copies while the limited supply lasts.

Sunkist Growers
Section M-7205, Terminal Annex
Los Angeles 54, California

Please send me postpaid_____ copies of The Low Sodium Cook Book. I enclose $_____
(Send $1.25 for each copy ordered.)

Name _____

Street Address _____

City _____ Zone _____ State _____

ferences for dietitians, dietetic interns, and volunteer workers are conducted by the Chief, Physical Medicine and Rehabilitation Service, and the Ward Psychiatrist. At these meetings individual patients or treatment aims in general are discussed. This has contributed much to the success of the clinic and is a feature every project of this type should have. Without it, proper treatment of patients could not be maintained. Evaluation of these weekly discussions is best illustrated by again quoting the Chief, Physical Medicine and Rehabilitation Service:

"Since those early orientation days, the Ward Psychiatrist and I have met with the clinic workers every week. These meetings are essential to insure the proper therapeutic spirit and maintain adequate liaison with the ward personnel. The actual content of the meetings will vary. In some cases there is a need to discuss a given patient exhaustively in order to understand our approaches and aims. Other times we have discussed some general principles of mental hospital care. I think it would be an error to structure these meetings too rigidly beforehand. We seem to be getting good results by meeting the needs of the day, depending on the current situation in the clinic.

"Results to date can be evaluated from the reactions of the personnel of the clinic, of the ward, and of the patients themselves. Individual records of the patients' responses are maintained by the Teaching Dietitian. It is felt that the patients' remarks, especially when directly related to the clinic, should be utilized for in-service teaching and for maintaining a supply of current information to the ward. All of the dietetic interns have expressed a strong feeling that the clinic is an excellent area for learning, and they have commented on its therapeutic orientation.

"The volunteers have maintained their enthusiasm because, as they express it, they see specific results in the patients in the form of increased socialization, improved personal habits, and better contact. These excellent workers are a very sensitive index of the level of operation of any therapeutic area, for they have no need for administrative conservatism in their observations, and they tell us just what they see. I feel that their continued participation and enthusiasm is one good measure of the results. The psychiatrist in charge of the women's service feels the clinic in general has made a sizable contribution to the total therapy for the patients and has told me repeatedly that he has been quite gratified by the general results.

"Undoubtedly the most important evaluation of the clinic at this time would come from the patients themselves, both from their comments and, more importantly, from their clinical improvement. There has been in general a significant increase in socialization of the withdrawn patients, reduction in bizarre and unusual behavior, and some degree of improved contact. One brief clinical instance is given:

> "R. C., a divorced white woman, age forty, has been hospitalized for a severe schizophrenic reaction since 1946. Various therapies were ineffective and she followed a flat clinical course with a tendency toward unusual toilet rituals, occasional periods of excitement, almost complete isolation, and bizarre affectations of dress. When she first came to the cooking clinic she brought a bundle of personal clothing to wash, wore a shower cap, affected other strange dress, and remained extremely aloof. Starting last Christmas, she began to develop a relationship with a dietetic intern and became increasingly interested in the clinic activities. Now the former peculiarities are not in evidence. She no longer wears the bathing cap or affects other strange modes of dress. She has become more social and no longer remains aloof. She now participates in cooking and other activities and requests additional periods of attendance. During the recent party she volunteered to assist with table decorations. Her socialization, participation, and normal dress are improvements that we have not noted before during the seven years of hospital care."

Reviewing the six months of the clinic operation, the Dietetic Service cannot help feeling pride in its accomplishment. Patient motivation has been excellent, interest is keen. Much of the credit goes to the cooperation and interest shown by other departments and services and to the help given by members of the Volunteer Services. Without either, the clinic could not have had an auspicious beginning.

REFERENCE

FREEMAN, R. V., AND SCHWARTZ, A.: A motivation center. A new concept in total neuropsychiatric hospital care. Am. J. Psychiat. 110: 139, 1953.

Food Service Training in New York State Mental Institutions[1]

KATHERINE E. FLACK

Director of Nutrition Services, New York State Department of Mental Hygiene, Albany

New York is privileged to have a separate Department of Mental Hygiene operated as a unit of the state government. This Department has the responsibility for twenty-seven institutions for mentally ill, mentally defective, and epileptic patients. Of these, eighteen are hospitals for the mentally ill, six are state schools for mentally defective persons, and one is a state institution for patients with epilepsy. In addition, two institutes for research—the New York State Psychiatric Institute and Syracuse Psychopathic Hospital—are also included in the mental hygiene service.

The present population of these institutions is approximately 108,000 patients in residence, about

[1] Presented at the 35th Annual Meeting of The American Dietetic Association in Minneapolis, on October 23, 1952.

The Touch that Makes the Patient Happy !

Milapaco "ROSE LINEN"

Embossed Paper

TRAY COVERS

with Matching Doilies

ATTRACTIVE!
SANITARY!
ECONOMICAL!

To brighten up tray service, to lighten cost burdens, look to embossed paper tray covers like "Rose Linen", another popular design by Milapaco. This attractive tray cover, with matching doily, faithfully simulates in paper the delicacy and texture of real linen.

In linen — or any of many distinctive lace or stock and special print designs — Milapaco tray covers add welcome "meal appeal" to hospital tray service . . . always fresh, clean and sanitary . . . used once and discarded to reduce contamination . . . extra soft to prevent sliding, absorb spillings and reduce noise from the clatter of china and utensils.

A proven economy, too, Milapaco tray covers cost but penny-fractions per serving . . . come in a wide range of sizes to fit any tray . . . cut linen costs . . . reduce laundry-labor expense . . . save wear on trays . . . speed up service . . . and store compactly.

The happy touch for the patient — and the dietitian and purchasing agent, too — Milapaco tray covers are indeed a "preferred stock." And for all your specialty needs, look to the famous Milapaco family, a complete dependable source of quality specialty paper products.

Napkins, Doilies, Place Mats, Tray Covers. Cups: Drinking, Portion, Baking. Special and Stock Print Table and Bar Service. Absorbent Single-Service Paper Bath Mats.

WRITE or CALL

Milapaco

MILWAUKEE LACE PAPER CO.

Division of Smith-Lee Co., Inc.

1310 E. Meinecke Ave. Milwaukee 12, Wisconsin

BATH MAT

SPECIALTY PAPER PRODUCTS OF CHARACTER SINCE 1898

11,000 convalescents, about 2,100 patients in family care, and about 750 in colony care, giving us a total responsibility of approximately 121,600 patients. To care for the 108,000 patients in residence, we have approximately 24,000 employees. Thus the magnitude of the food service tasks speaks for itself.

Although food is a simple and familiar thing, dietitians know that the preparation and serving of meals in such institutions is a difficult problem. Not only the health and well-being of the patient depend on the satisfaction he receives from the food he is served, but the morale of both patient and employee is directly influenced by food served in the institution.

As one step toward general improvement of care for our institution populations, in-service training for food service employees has been instituted. The specific objectives of this training program are: (a) to develop high standards of food preparation and service; (b) to achieve efficient use of food supplies with emphasis on principles of good nutrition in all phases of menu making; (c) to employ preventive measures against food-borne diseases through food sanitation; and (d) to create maximum safety in kitchen operations through the proper use of equipment.

This training program has been worked out as a three-week course. The first week is devoted to lecture-demonstrations, informal classroom discussion, and laboratory participation by the student, and the last two weeks are spent in one of two institution kitchens for practical field experience.

One or two cooks from each institution are selected to attend each three-week course. Thus the number trained in each class varies. Candidates for this training are chosen by the food service manager in each institution from those who have served their probationary period and have shown interest in their job.

CURRICULUM FOR THE FIRST WEEK

The New York State Food Service Training School at the Hudson River State Hospital in Poughkeepsie, where the first week's work is given, has been equipped with adequate and suitable facilities. It consists of an assembly room, one end of which is equipped for library use; an office; a laboratory for demonstration and practice; refrigeration and storage space and a delivery room for supplies; and dressing rooms. The refrigeration and storage room contains two large refrigerators, tables, portable food trucks, and a sink and scales for weighing produce. The laboratory is fully equipped to carry out the principles of production flow. The vegetable preparation center contains a peeler, three sinks with drainboard, and a vegetable dicer. The kitchen itself is equipped with a cook's table and adjacent sink; a steamer; one 40-gal. and two 60-gal. steam-jacketed kettles; a deep-fat fryer; a fry-top range and broiler; roasting ovens; and a butcher's block. In the bakery section are: a baker's stove, a bake oven, a proof box, an electric mixer, a baker's table and sink, a chopping machine, coffee urns, and a cupboard. The scullery is equipped with a large scrapping table; three sinks for wash, rinse, and final rinse; a pot sterilizer; and a garbage disposal unit.

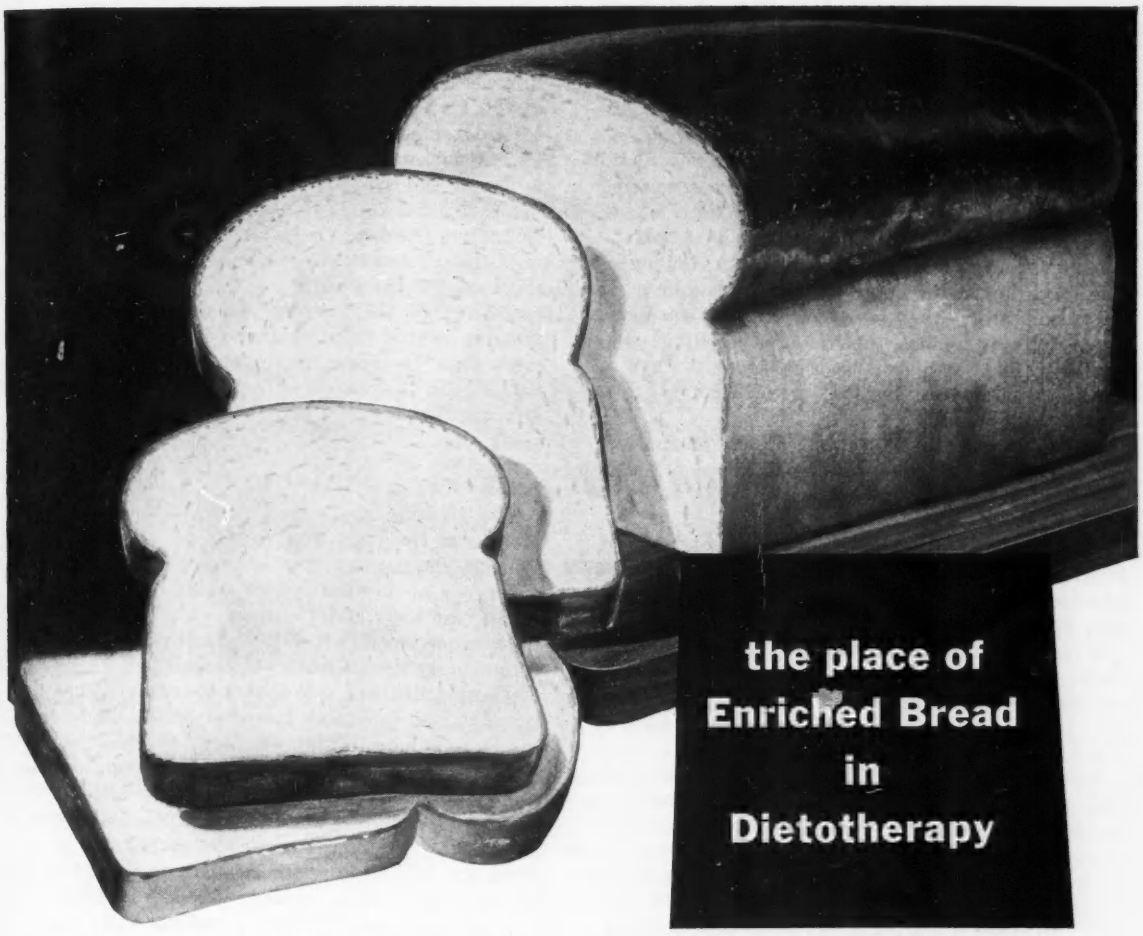
The first week's work combines demonstration and laboratory work with classroom discussion, for it has been found that it is difficult for adults who have been out of school and working for ten or fifteen years to settle down to formal classroom teaching. Subjects covered include sanitation, simple nutrition, care of equipment, food preparation, and waste prevention.

Food sanitation and personal hygiene are stressed by a very elementary course in bacteriology given by a doctor on the staff of the Hudson River State Hospital. The importance of clean equipment and the need for sanitary storage and handling of food is emphasized by agar plate demonstrations. Sterile plates are contaminated in several ways by the students themselves: by touch with soiled hands and swabs from improperly washed dishes, by coughing, and by placing hairs and insects on the plates. After incubation, the students are shown the resulting bacterial growth on the plates. Hanging drop slides are also prepared so that the student may view the live bacteria retrieved from infected surfaces. An attractive pamphlet, prepared in an amusing and readable form, "War in the Kitchen," is also distributed to enlist further the aid of the trainees in preventing food contamination.

Simple nutrition is presented in combination with directions for proper food preparation. For instance, a discussion of proteins is introduced with the demonstration on preparation of meat, eggs, milk, and cheese. The effect of heat on these foods is discussed and demonstrated, and the value of this food group is outlined by the class with suggestions from the instructor. The advantage of low-temperature meat cookery is determined by the students themselves after participating in a comparative test where roasts of equal size and weight are cooked—one started at high temperature, then covered and roasted, the other roasted uncovered in an oven heated to 350°F.

An effort has been made to develop basic procedures for preparation of all food groups with special emphasis on simplifying and modernizing preparation methods. Conservation of food elements through proper cooling becomes an objective for each cook when he understands the reason for the "newfangled" directions posted in the kitchen.

For six years the Department has been compiling formulas for large quantity food preparation. These formulas receive considerable attention in the training course, and each student is given an opportunity to help in developing and standardizing new formulas. In this way, the original file of approximately



In the many instances encountered in everyday practice when dietary adjustment assumes a therapeutic role, the special diet gains in nutritional value when the bread included is enriched bread.

Enriched bread, today the bulk of commercial bread, contains important amounts of added B vitamins, iron, and in most instances nonfat milk solids. Because it supplies significant quantities of essential nutrients that are metabolically required regardless of the condition under treatment, enriched bread deserves a place in virtually all special purpose diets, including those for weight reduction. In the latter, two or three slices of enriched bread, the quantity usually allowed, contribute needed calories as well as essential nutrients in noteworthy amounts.

In compliance with government regulations, enriched bread, per pound, provides at least 1.1 mg. of thiamine, 0.7 mg. of riboflavin, 10 mg. of niacin, and 8 mg. of iron. By and large, enriched bread as marketed also supplies about 400 mg. of calcium and 39 Gm. of protein. Since the protein consists of flour and milk proteins, it is biologically valuable for growth as well as tissue maintenance. Thus enriched bread can make a significant contribution to the satisfaction of daily requirements in dietotherapy.

Bread rounds out virtually every diet. Because it is readily digested and contains only an insignificant amount of indigestible residue, enriched bread is rarely—if ever—contraindicated.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

AMERICAN BAKERS ASSOCIATION

20 North Wacker Drive • Chicago 6, Illinois

two hundred formulas has been augmented and students learn the advantages and importance of standardized recipes.

The efficient use and care of equipment is stressed during this first week. In visits to the various institutions operated by the Department, it was found that steamers were used extensively for preparing potatoes and beets. Consequently, the use of steamers in preparing many vegetables, partial cooking of meat and fowl, poaching and boiling of eggs, and precooking apples for baking is taught. It was also learned that many of the kitchens have failed fully to realize the value of existing oven facilities. Thus emphasis is also placed on ways in which oven preparation may replace top-of-stove cooking.

In conjunction with the work on equipment, the use of proper utensils for baking and cooking operations is presented, with attention to the value of different metals.

The word "garbage" is taboo at the school. It is spoken of as "raw food preparation losses," "surplus food losses," or "plate waste" so that the student may appreciate his responsibilities in the control of this factor. He is taught that raw food preparation losses may be reduced by careful checking, correct storage of incoming produce, and careful supervision of vegetable preparation units, centrally located where possible.

Work schedules are also considered. At the beginning of the week each student is given a theoretical problem using a specific menu. The number of employees to handle the preparation of this menu, the equipment available, hours of meal service, and the number to be served are stated. The student is asked to make a work plan to meet this situation. His solution to the problem is reviewed and filed until the end of the week, at which time he is given a similar problem and again asked to complete a work schedule. In this way, the instructor is able to judge how effective his teaching has been.

THE LAST TWO WEEKS

During this theoretical, classroom part of the curriculum, the student has become familiar with equipment in the laboratory and has prepared foods according to the standardized procedures. He is then assigned for two weeks to one of two institution kitchens for practical field experience. He becomes a working member of this kitchen crew and is responsible to the head cook, who is affiiliated with the food service training staff. The food service instructor works with the head cook in planning work assignments and in evaluating the practical ability of the student.

At the completion of the three weeks, students are graded on the basis of daily quizzes given during the first week, the comprehensive examination at the end of the first week, and a service rating based on a scale developed to evaluate the practical field work. On satisfactory completion of the course, a diploma is issued and sent to the director of the trainee's institution. At the next meeting of the food service committee—which is composed of the hospital's administrative assistant director, the business officer, the food service manager, the dietitian, and representatives of the nursing and ward services—the director awards the diploma to the student. At the same time, the student is required to report on his training. In this way, the Department's high standards are continuously kept before employees of the institution.

DEVELOPING FOODS

The training program is conducted during nine months of the year, from September through May. During the summer, the laboratory is used as an experimental kitchen where new food items are tested, methods and techniques for large quantity preparation are improved, and additional standard formulas are developed.

The Department also makes an effort to use by-products of the food industry which have high nutritive value—full-fat soy flour, soy grits, nonfat dry milk solids, wheat germ, and brewer's yeast. Such products have been incorporated in many of the standard formulas, and as early as 1945, food service personnel were instructed in the proper use of soy products. All formulas for cooked cereal contain 10 per cent soy grits; many meat-extender formulas use soy grits and brewer's yeast; and soy flour supplements white flour in gravy, white sauces, and all baked goods. Nonfat dry milk solids, a valuable and inexpensive source of high quality protein and calcium, are used extensively in food preparation in all institutions of the Department.

VALUE OF PROGRAM

It is felt that through this in-service training program some of the objectives of the Nutrition Division of the Department of Mental Hygiene have been realized. Standards of food preparation have been raised; there is greater efficiency in the use of food supplies; improved sanitary conditions in food handling are evident; greater safety in kitchen operations has been achieved by standardized procedures and directions; and the representatives from each institution who have shared in this program have also gained an appreciation of their own responsibility in the task of feeding patients.

▼•▼•▼•▼•▼•▼•▼

Science has given back to the universe . . . that quality of inexhaustible richness and unexpectedness and wonder which at one time it seemed to have taken away from it.—
SIR EDWARD APPLETON

"We rely on Soilax service,"

says Mr. Leonard J. Mangum,
Supervisor of Utility Usage, Frank G. Shattuck Co. (Schrafft's),
New York, N. Y.

Mr. Mangum has been with the Shattuck organization since 1936. Starting as a trainee, he has been through the mill, from counterman to management of some of Schrafft's largest stores and finally to his present post as supervisor of Utility Usage, including all dishwashing operations.

"because we want dishroom efficiency ...not compound bargains!"

DON'T BE PENNY-WISE AND POUND-FOOLISH ABOUT DISHROOM COSTS

Even when you use SOILAX PRODUCTS . . . the world's finest for keeping tableware sparkling clean . . . your compound costs account for only about 5% of your dishroom expense. So, if it's *true* economy you're after, look to the 95% that goes for *labor, hot water,* and *breakage!*

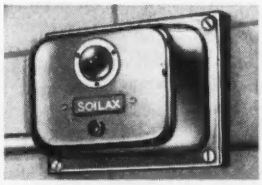
That's just what SOILAX SERVICE does. A trained dishroom expert studies your operations, methods and equipment . . . recommends the right compound for the right job . . . and then goes after the *other 95% of your costs!*

The SOILAX Expert can help you streamline every handling operation . . . reduce breakage . . . find systematic short cuts in sorting, scraping, racking . . . eliminate costly hand toweling and unnecessary dipping and scouring.

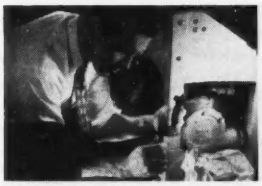
He'll tell you if automatic dispensers and controls are necessary for greater efficiency. He'll check your hot water system for leaky valves and wasteful misuse. He'll put your dishroom on a really economic schedule—and train your staff to keep it working that way. No charge or obligation. Just write or phone.

Here's EL EFFICIENCY ENGINEERING—For Every Type and Size Dishroom

PRODUCT QUALITY—Top-quality detergents and dishwashing compounds—each *best* for its particular purpose.



CORRECT EQUIPMENT—Automatic dispensers, control units for large and small operations increase efficiency, lower costs.



PERIODIC CHECKUPS—Trained experts make monthly checks to help maintain efficiency—and employee cooperation.

PERSONNEL TRAINING—SOILAX offers special training film, *"Dishwashing Dividends,"* with expert on-the-job instruction.

First in Food Utensil Sanitation

EL ECONOMICS LABORATORY, INC.
St. Paul, Minnesota

Makers of: SUPER-SOILAX • SOILAX "C" • SOIL-A-WAY • SATINITE • TETROX • SOILMASTER
GLASS MAGIC • SILVA-DRY • DIP-IT

Current Literature

Contributed by Mildred Bonnell and administrative dietetic interns, University of Washington, Seattle; Janette C. Carlsen and Ethel M. Miller, The Johns Hopkins Hospital, Baltimore; Mary L. Majerus, Dietetic Intern, Veterans Administration Center, Los Angeles; Elizabeth H. Tuft, Wesley Memorial Hospital, Chicago; and the Journal staff

ANNALS OF INTERNAL MEDICINE

Vol. 40, February, 1954

* Vitamin B_{12} and megaloblastic anemia: recent studies. Editorial. M. S. Sacks.—p. 375.

Vitamin B_{12} and Megaloblastic Anemia. Megaloblastic anemias respond favorably to folic acid or its derivative, folinic acid (citrovorum factor). In pernicious anemia, the response is temporary with an inevitable hematologic relapse in spite of continued therapy. During the relapse there is accelerated destruction of the patient's own cells as well as normal cells given by transfusion. This phenomenon of cell destruction disappears during remission, but a progression of neurologic damage continues. The megaloblastic anemias of pregnancy and infancy are probably folic acid deficiencies and may thus be treated successfully with this vitamin alone. They are not cured by liver or B_{12}.

BRITISH MEDICAL JOURNAL

No. 4856, January 30, 1954

* Clinical and chemical studies in human lactation. IV. Trends in milk composition during the course of lactation. F. E. Hytten.—p. 249.

Studies in Human Lactation. The differences occurring in the composition of milk on the seventh day of lactation have been studied in 150 women, 121 of whom were primiparae. There is no statistically significant difference between the milk of primiparae and multiparae, but evidence is presented to show that the same woman, in two lactations, may produce milk differing greatly in fat content. There was a wide range of values for all the major constituents as well as for the total yield at this stage of lactation. The variability of the lactose and protein seemed to be due to differences in speed of maturation of the milk. There was a wide range of fat content, and consequently of caloric value. The fat content is apparently unrelated to the content of other constituents and seemed to be an individual characteristic. In some milks, the fat content was so low that, even with a high milk volume, the child might be undernourished.

CEREAL CHEMISTRY

Vol. 31, January, 1954

* The baking behavior of casein and whey prepared from skimmilk by various procedures. A. L. Gordon, R. Jenness, and W. F. Geddes.—p. 1.
* Baking behavior and oxidation requirements of soy flour. I. Commercial full-fat soy flours. C. W. Ofelt, A. K. Smith, and R. E. Derges.—p. 15.
* Baking behavior and oxidation requirements of soy flour. II. Commercial defatted soy flours. C. W. Ofelt, A. K. Smith, and J. M. Mills.—p. 23.

Baking Behavior of Casein and Whey. Acid coagulation, rennet coagulation, and supercentrifugation were the procedures used to separate casein from raw skim milk. In general, the method of fractionating milk into casein and whey components had little influence on baking behavior. However, acid-precipitated casein was slightly superior to rennet-clotted casein and supercentrifuged casein. This may have been due to a loss of milk salts associated with the casein component in milk which were removed by acidifying milk to a *p*H of 4.6. The findings that casein prepared by supercentrifuging depresses the loaf volume of bread were confirmed, and, it was also demonstrated that bread baked with supercentrifuged whey as an adjunct was consistently 10 to 15 per cent lower in loaf volume.

Full-Fat Soy Flours in Baking. A survey of the baking behavior of full-fat soy flours was made to determine their effect on dough and bread properties. The results showed that when potassium bromate is used, the deleterious effects usually attributed to soy flour are almost entirely absent. Dough properties are satisfactory and loaf volume nearly equivalent to that of the basic loaf; some change in crumb color is detectable.

Defatted Soy Flours in Baking. A survey was made of the baking behavior of the defatted soy flours now available to the food industry to determine their effect on dough and bread properties. The addition of defatted soy flour had no effect upon proofing time, but, almost without exception, the addition of commercial soy flours yielded breads which had a harsh crumb as compared with the basic loaves. However, when used with the proper amount of oxidation, defatted soy flour did not significantly impair loaf volume, crumb character, or dough-handling properties. Some soy flours improve crumb color, and it is doubtful that any color change caused by most soy flours would be noticeable to the consumer.

FOOD RESEARCH

Vol. 19, January–February, 1954

* Sorbic acid as a fungistatic agent for foods. I. Harmlessness of sorbic acid as a dietary component. H. J. Deuel, Jr., R. Alfin-Slater, C. S. Weil, and H. F. Smyth, Jr.—p. 1.
* Sorbic acid as a fungistatic agent for foods. VII. Effectiveness of sorbic acid in protecting cheese. D. P. Smith and N. J. Rollin.—p. 59.
* The effect of certain mineral nutrients on the ascorbic acid content of leaf lettuce. C. F. Harding and J. J. David.—p. 138.

Harmlessness of Sorbic Acid. Experiments were performed on rats and dogs which indicate that sorbic acid is harmless when incorporated in the diets to the extent of 5 per cent (moisture-free basis). It has been found to be markedly superior to sodium benzoate as a fungistatic agent in protecting cheeses and cheese products, foods which are very susceptible to mold spoilage. Results of the experiments showed that sorbic acid does not act as an antimetabolite for essential fatty acids in rats. It was also found that it is far less toxic than sodium benzoate. The incorporation of sorbic acid into the diet did not decrease the utilization of the foodstuffs fed concomitantly, as determined from the efficiency ratio. Rather, the findings indicate that sorbic acid is utilizable by the animal organism as a source of calories.

Sorbic Acid for Protecting Cheese. For the purpose of controlling mold growth in packaged cheese, a large number of fungistatic agents were screened by evaluating their effectiveness in protecting natural cheeses following inclusion of the respective agents in moisture-proof wrappers. Sorbic acid was found to be the most promising, since it was found to meet both technical and practical requirements. The Food and Drug Administration has given tentative approval for use of these sorbic-acid-treated wrappers on cheese. Taste tests of processed cheese containing sorbic acid and of natural cheeses which had been packaged in treated wrappers showed that there is no objectionable taste, odor, or color.

Ascorbic Acid in Lettuce. An investigation was made of the influence of the three major mineral nutrients, nitrogen, phosphorus, and potassium, on the synthesis of ascorbic acid by the lettuce leaf. The results obtained indicate that mineral nutrition had some effect on the ascorbic acid content of leaf lettuce. However, the effect was small and would not account for the wide variation in concentration observed in plants. It is apparent that some other factor or factors besides nutrition is responsible for the greater part of these variations. In general, the effect of increased nitrogen and phosphorus was to increase the ascorbic acid content, while increased potassium caused a decrease. The balance between the levels of the three elements was as important as the amount of any one nutrient, particularly in the case of phosphorus and potassium.

FOOD TECHNOLOGY

Vol. 8, March, 1954

* Sorbic acid as a fungistatic agent for foods. VIII. Need and efficacy in protecting packaged cheese. D. P. Smith and N. J. Rollin.—p. 133.

If you could look into homes

all over the country . . .

time and again
you'd see
this dinnerware

Millions of pieces of Boontonware have been sold for home use alone. And for the same reasons that make it even more of an ideal buy for food service on a large scale.

Boontonware makes the most of Melmac's famous break-resistant qualities. There's practically no breakage loss.

Boontonware's design rests comfortably between traditional and modern. Another reason for its mass appeal.

Boontonware's full selection of colors — solid pastels and deep tones — bring new life to food service and surroundings. Related colors, for perfect blending and mixing.

Boontonware is a complete line. Plates, bowls, cups and service dishes for every need.

You can be double-sure when you specify Boontonware. Sure of cutting operating costs. Sure of using the dinnerware that enjoys wide-spread acceptance in the best of homes.

Eight Colors to Mix or Match

POWDER BLUE	GOLDEN YELLOW
CRANBERRY RED	COPPER ROSE
SEA FOAM GREEN	STONE GRAY
FOREST GREEN	TAWNY BUFF

MEET C.S. 173-50 OF THE NATIONAL BUREAU OF STANDARDS

Boontonware complies with CS 173-50, the heavy-duty melamine dinnerware specification as developed by the trade and issued by U. S. Department of Commerce, and conforms with the simplified practice recommendations of the American Hospital Association.

See your regular Supply House or write to us for the name of your nearest Dealer.

Boontonware
fine dinnerware fashioned of MELMAC®

BOONTON MOLDING COMPANY, BOONTON, N. J.

* Some factors affecting the whipping characteristics of dried whole egg powders. R. P. Joslin and B. E. Proctor.—p. 150.

Sorbic Acid Protects Cheese. Over 13 million lb. cheese which are wasted annually by mold can be saved by the use of suitable fungistatic wrappers. Sorbic acid, a harmless, polyunsaturated C_6 fatty acid, satisfies all the requirements of a good fungistatic agent for use on many wrappers. The properties of an ideal agent are listed, as well as the properties for which sorbic acid was chosen from many materials tested. Conditions essential to successful inhibition of molds are also listed.

Dried Whole Egg Powders. Experiments, described in this article, show that yolks rather than whites are responsible for the loss of foam volume in whipping tests with rehydrated egg powders and that the free oil of dried whole egg powders causes their antifoam action. Certain emulsifiers can eliminate this action, but those found to be successful are questionable additives. Some emulsifiers are themselves anti-foam agents and hence defeat their purpose. Further study of the problem is indicated.

JOURNAL OF THE AMERICAN GERIATRICS SOCIETY

Vol. 2, February, 1954

* The treatment of Laennec's cirrhosis of the liver. J. Post.—p. 114.

Treatment of Laennec's Cirrhosis. As seen in this part of the world, Laennec's cirrhosis of the liver is a disease most commonly associated with malnutrition and conditioned by alcoholism. A nutritious diet, with vitamin supplements, is effective in reversing the downhill course of the disease and restoring the patient to good health. The use of mercurials, ammonium chloride, salt restriction, exchange resins, and intravenous salt-poor albumin is of benefit in the management of fluid retention. It has been shown that the patients with Laennec's cirrhosis may consume alcohol, provided their nutritional state is well maintained. The problems of therapy for bleeding esophageal varices and hepatic coma are discussed.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

Vol. 154, February 20, 1954

* Control of trichinosis by gamma irradiation of pork. S. E. Gould, H. J. Gomberg, and F. H. Bethell.—p. 653.

Trichinosis and Gamma Irradiation. Experiments were performed in which trichinous pork was exposed to gamma irradiation of Co^{60} and of waste fission material contained in old nuclear fuel rods. Results showed that a dose of approximately 15,000 r was required to produce complete sterilization and a dose of approximately 18,000 r to prevent maturation of larvae to adult forms. The radiation from the fission products appeared to produce the same results regarding sterilization of trichina larvae as were obtained from Co^{60} radiation in doses about 10 per cent higher. Since the spectrum of radiation from the fuel rods could not be obtained, the reason for this somewhat higher effectiveness could not be determined.

THE JOURNAL OF BIOLOGICAL CHEMISTRY

Vol. 206, February, 1954

* Amino acid composition of human milk. P. Soupart, S. Moore, and E. J. Bigwood.—p. 699.

* On the endocrine regulation of blood amino acid content. J. M. Luck, A. C. Griffin, G. Boer, and M. Wilson.—p. 767.

Glutamic acid inhibition of aspartic acid utilization in threonine biosynthesis. J. M. Ravel, B. Felsing, and W. Shive.—p. 791.

*The influence of vitamin B_{12} on carbohydrate and lipide metabolism. C. T. Ling and B. F. Chow.—p. 797.

Micro flame photometric determination of sodium, potassium, and calcium in serum with organic solvents. G. R. Kingsley and R. R. Schaffert.—p. 807.

*Mechanism of increased hepatic cholesterogenesis in diabetes: its relation to carbohydrate utilization. S. Hotta, R. Hill, and I. L. Chaikoff.—p. 835.

Amino Acids in Human Milk. The fundamental importance of human milk in infant nutrition makes it desirable to have available as complete information as possible on the amounts of amino acids contributed to the diet from this source. The amino acid composition of human milk determined chromatographically shows glycine, alanine, proline, and glutamic and aspartic acids to be considerably higher than thought previously. For most of the amino acids, the values obtained by the different methods were in fair agreement. As is true of most foods, the four nutritionally important amino acids present in the smallest amounts are cystine, methionine, tryptophan, and histidine. All of these are present in human milk at about the 2 per cent level. The analyses account for 88 per cent of the total nitrogen in terms of amino acids and ammonia. A considerable proportion of the ammonia in the hydrolysate arises from the urea of human milk.

Amino Acids in Blood. An investigation was made to determine whether the amino acid lowering which has been consistently observed with epinephrine in intact animals is the result of pituitary stimulation. Subcutaneous administration of physiologic saline to intact and hypophysectomized rats led to a small reduction in the amino nitrogen concentration of blood. The capacity of subcutaneously injected epinephrine to lower significantly the concentration of amino acids in the blood of normal animals was confirmed, but epinephrine induced hypoaminoacidemia in the hypophysectomized animals. Growth hormone induced a hypoaminoacidemia in both intact and in hypophysectomized rats whereas diethylstilbestrol induced it only in the hypophysectomized rat.

Vitamin B_{12} and Carbohydrate and Lipide Metabolism. The effect of vitamin B_{12} on carbohydrate and lipide metabolism was studied by measurements of blood sugar levels, by glucose tolerance tests, and by the estimation of the phospholipide content of blood and tissues. Its possible relationship to the changes in blood glutathione content was also investigated. Experimental results indicate that the vitamin B_{12} deficiency entails a derangement in carbohydrate utilization and decreases the phospholipide content of blood and tissues. Administration of glutathione or vitamin B_{12} lowered the blood sugar levels in rats with hyperglycemia induced by a high-carbohydrate:low-fat diet and by glucose injections. It is concluded that vitamin B_{12} plays an important role in carbohydrate and lipide metabolism and that the effect of this vitamin on blood glutathione concentration may be of significance in its role in metabolism.

Hepatic Cholesterogenesis in Diabetes. The effect of prolonged fructose feeding on hepatic cholesterogenesis in the diabetic rat was studied. The rates of incorporation of the C^{14} of acetate-1-C^{14} into cholesterol by livers of two groups of alloxan-diabetic rats were compared, one group being fed a diet containing 60 per cent glucose, the other a diet containing 60 per cent fructose. The capacity of the liver of the glucose-fed, diabetic rat to incorporate the C^{14} into cholesterol was more than twice that observed with livers of normal rats fed either the high glucose or the high fructose diet. The rate of hepatic cholesterogenesis in diabetic rats was restored to normal by the feeding of the high fructose diet. The mechanism of increased hepatic cholesterogenesis in diabetes is discussed.

THE JOURNAL OF CLINICAL NUTRITION

Vol. 1, November-December, 1953

*The use of fat supplements in the nutrition of critically ill patients. G. M. Mindrum.—p. 503.

On physical stigmata ascribed to vitamin A and ascorbic acid deficiencies. C. A. Newhall, S. B. Merrow, A. B. Durbrow, M. P. Lamden, and H. B. Pierce.—p. 517.

A low-cost, high protein, low calorie food. B. Sure.—p. 534.

*Man, his nutrition, and his years. Dietotherapy Section. V. W. Walker.—p. 552.

Fat Supplements during Illness. Studies were made of nine critically ill patients who exhibited evidence of protein depletion. Supplemental calories were administered in the form of fat emulsions. In each case, general improvement coincided with the administration of these supplements. All patients showed weight gain, increased resistance to infection, decrease in fever, and marked improvement in strength and morale. Of particular interest was the effect of added calories on the rate of wound healing. Decubitae, previously resistant to any therapy, decreased in size and healed. The importance of adequate caloric intake is stressed in the treatment of acute and chronic illness.

Nutrition and Geriatrics. The relation of diet to longevity is pointed out and various recommendations are made for the most nutritious diet for the aging. Restriction of calories is thought to be the most important single factor. The need for adequate protein of good quality in the diets of old people is being given increased emphasis. In a study of longevity in laboratory animals, it was

Sexton
Quality Foods

Chambord Restaurant, Third Ave. at 49th Street, New York, N. Y.

the Gallic touch

To lovers of the French cuisine, Chambord is an oasis in New York City. Here the flair for viands of originality demands and gets from Sexton relishes, condiments and appetizers of the desired piquancy and tanginess. Just as the French know so well how to prepare and serve meals with that extra fillip of style and taste, so does Sexton know how to create and prepare the appetizers and relishes that transform a meal from the commonplace to the distinctive.

JOHN SEXTON & CO., CHICAGO, 1954

found that vitamin A and calcium made the significant difference between the merely adequate diet and the diet which promoted longer, more vigorous life. The importance of water in the diets of older persons is also stressed.

THE JOURNAL OF NUTRITION

Vol. 52, January, 1954

*Nitrogen balance of young albino rats force-fed methionine- or histidine-deficient diets. R. M. Forbes and L. Vaughan.—p. 25.

*Influence of carbohydrate, nitrogen source and prior state of nutrition on nitrogen balance and liver composition in the adult rat. M. W. Marshall and M. Womack.—p. 51.

*Absence of a time factor in the relationship between level of energy intake and protein metabolism. H. N. Munro and T. W. Wirkramanayake.—p. 99.

*Interactions between a high concentration of dietary sodium chloride and various levels of protein when fed to the growing rat. J. H. Meyer.—p. 137.

Nitrogen Balance by Force-Feeding. The nitrogen balance of young albino rats was studied under conditions of methionine and of histidine deficiency by a force-feeding technique which assured equal and adequate caloric intake. Three experiments were performed and the striking effects of amino acid deficiency were clearly seen in all of them. In general, the animals on the complete amino acid rations gained 1.5 to 2.0 gm. daily, while those on the methionine- or histidine-deficient diets no more than maintained their weight and in some cases lost weight. The amino acid deficiencies resulted in markedly reduced nitrogen balances. If the animals were depleted of protein stores prior to force-feeding the amino-acid-deficient diet, the nitrogen balances decreased beyond the point of equilibrium.

Carbohydrates in Amino Acid Rations. Animals fed 0.1 per cent of the essential amino acids with sucrose as the carbohydrate had more negative nitrogen balances and a greater accumulation of fat in the liver than animals fed the same quantities of amino acids with corn dextrin. When the amounts of the essential amino acids were doubled (0.2 per cent), differences in nitrogen balances were eliminated for both undepleted and protein-depleted animals fed the two carbohydrates. Glutamic acid significantly improved the nitrogen balances of animals fed sucrose, but was without effect on corn-dextrin-fed rats. The livers of animals fed sucrose, except for the protein-free diet, contained more protein than those of animals fed diets with corn dextrin; the differences in protein content were statistically significant when the nitrogen balances differed. It is suggested that corn dextrin in the diet in some fashion facilitates the use of liver protein, or amino acids that would become liver protein, and results in reducing nitrogen output and perhaps in retarding the accumulation of liver fat.

Time Factor in Protein Sparing. The nitrogen metabolism of dogs, human subjects, and rats receiving a carbohydrate supplement separate from dietary protein was studied. Results showed that protein utilization is affected in two ways by the other energy-yielding nutrients in the diet. First, protein utilization is favorably influenced by the presence of some carbohydrate in the protein-containing meals. Close proximity in the time of eating carbohydrate and protein is necessary in order that this interaction may take place, and fat cannot be used in place of carbohydrate. Second, carbohydrate and fat act interchangeably as energy sources in sparing protein; in order to exert this sparing action, they do not need to be taken along with dietary protein.

Protein and Sodium Chloride Levels. Experiments are reported which investigate the possible interactions between dietary protein and high dietary levels of sodium chloride as they affect the growing rat. Both low-protein and high-sodium-chloride diets depressed plasma albumin. Extracellular fluid, as measured by chloride space, rose only on the low-protein:high-sodium-chloride diet. Kidney weights were increased by high-sodium-chloride diets. The addition of sodium chloride at 15.5 per cent of the ration increased nitrogen digestibility, but decreased food consumption at all casein levels. The growth depression caused by high-sodium-chloride feeding was of about the same magnitude at casein levels from 10 to 40 per cent.

THE MEDICAL CLINICS OF NORTH AMERICA

Vol. 38, January, 1954

Emergency complications of diabetes mellitus. J. M. Goldinger.—p. 183.

THE MILITARY SURGEON

Vol. 114, February, 1954

*Decontamination of food stuffs after atomic contamination. B. F. Trum.—p. 111.

Decontamination of Foodstuffs. In a strict sense, the decontamination of food contaminated by radioactivity is impractical. However, because of a naturally occurring decontamination or radioactive decay, it may not be necessary to condemn the food. Unfortunately, we cannot detect any, even the most harmful ionizing radiations by our senses and must rely on physical (instruments) or biologic (changes in living tissues) effects to inform us when a hazardous flux of radiation is present. In the presence of "fall-out," porous or absorbent surfaces such as meat, vegetables, or unprotected staples should be considered unrecoverable unless the contaminant is known to have a short half-life. Salvage of products in paper or cardboard cartons will depend on circumstances. The decision for satisfactory disposition can be made after the biologic and radiologic characteristics of the contaminating elements are considered. Only food inspection personnel with special training and equipment can answer this problem.

THE NEW ENGLAND JOURNAL OF MEDICINE

Vol. 250, February 4, 1954

Nutrition in clinical medicine. T. B. Van Itallie, J. Mayer, and F. J. Stare.—p. 199.

Vol. 250, February 18, 1954

*"Wheat-free" diet in the treatment of sprue. J. M. Ruffin, D. D. Carter, D. H. Johnston, and G. J. Baylin.—p. 281.

Wheat-Free Diet in Sprue. Recent investigators have shown that patients with celiac disease improved when wheat and rye flour were excluded from the diet and that a clinical and biochemical remission followed institution of a "wheat-free" diet. Further investigations incriminated the gluten fraction of wheat and rye as the responsible factor. A "wheat-free" diet was the only treatment administered (except calcium) to a patient with a remission of sprue. It should be emphasized that the patient had previously been treated intensively with folic acid, liver extract, and vitamin B_{12} over a period of many years. The striking clinical features of this patient's response to a "wheat-free" diet were the marked subjective improvement, rapid restoration of a sense of well-being, the cessation of diarrhea, and a 43-lb. weight gain. Further study is underway to determine if the clinical remission will be sustained without supplemental therapy, especially hematopoietic agents.

NEW YORK STATE JOURNAL OF MEDICINE

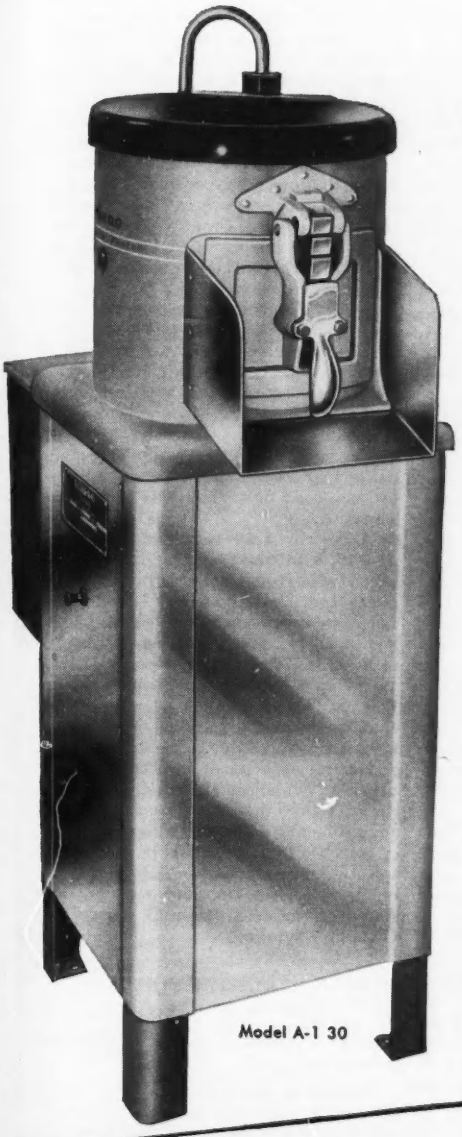
Vol. 54, February 1, 1954

*The endocrine control of carbohydrate metabolism. E. P. Ralli and M. E. Dumm.—p. 341.

Vol. 54, February 15, 1954

*Diabetes in pregnancy. A. R. Spiegelman.—p. 475.

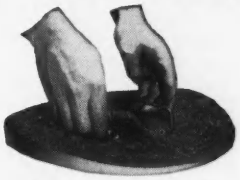
Current Concepts in Diabetes Mellitus. Carbohydrate, protein, and fat are interrelated in metabolic reactions. For this reason the effect of a hormone, although concerned primarily with the metabolism of one of the major foodstuffs, inevitably affects the metabolism of the others. The action of the hormones concerned with carbohydrate metabolism can be summarized as follows: The hormones of the pancreas are insulin and possibly the hyperglycemic factor. Insulin may act on hexokinase to overcome the inhibitory effect of a pituitary factor or may control the transfer of glucose into the cells. In the absence of insulin, carbohydrate is relatively unavailable as a source of energy, glucose is not converted to glycogen, and fatty acids accumulate and are not completely oxidized. The hyperglycemic factor acts on liver cells to control the formation of glucose from glycogen by increasing the activity of phosphorylase. The principal pituitary hormones affecting carbohydrate metabolism are: (a) the Cori "anterior pituitary" factor, which inhibits hexokinase and thus interferes with the phosphorylation of glucose to glucose-6-phosphate; (b) the growth hormone, the diabetogenic effect of which has been attributed to an inhibitory effect on the hexokinase reaction and to an inhibition of the formation of triose phosphate in the glycolytic cycle; (c) ACTH, which acts on the adrenal cortex, to stimulate hormone secretions. The hormones of the adrenal gland are: (a) epinephrine from the adrenal medulla, which controls the formation of glucose from glycogen by influencing

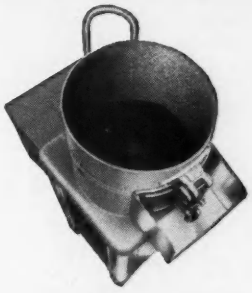

Model A-1 30

SAVE TIME . . . CUT COSTS

TOLEDO®

Double Action PEELERS





Speedy and efficient "double action" peeling is achieved by sharp abrasive on both disc and cylinder.

Choose the exact peeler for your needs . . . TOLEDO has it! Rolling motion of the vegetables exposes the peel uniformly to the abrasive, insuring complete "skin deep" peeling with a minimum of waste. Built-in peel trap separates peelings from water. Toledo Peelers are exceptionally easy to clean. Disc lifts out. Bottom of cylinder is designed so it will not catch peel particles. Full rated capacity is peeled in 1 to 1¼ minutes. Readily adaptable to installation requirements. A-1 Series for outstanding performance in restaurant kitchen use . . . A-1-C Series for heavy-duty production use.

10 models
15 lb. to 70 lb.

A-1 Series
- A-1-B-15
- A-1-15
- A-1-30
- A-1-45
- A-1-60

A-1-C Series
- A-1-C-15
- A-1-C-30
- A-1-C-50
- A-1-C-60
- A-1-C-70

Model 50B

NEW...
Food Waste DISPOSER
with Reverso-CLEAN Action

This new Toledo disposes of your food waste the fast, easy, sanitary way. Eliminates tedious, obsolete handling of garbage pails . . . food waste is shredded and flushed away. "Reverso-CLEAN" Action—self-cleaning, as shredder reverses automatically on each use, or under extra load. Easily installed in sink, for standard opening, or with stainless steel cone and scraping block, or silverware guard.

Please send without obligation your bulletins on these Toledos:

☐ Dishwashers, Door-Type ☐ Dishwashers, Conveyor ☐ Waste Disposers ☐ Peelers
☐ Slicers ☐ Choppers ☐ Steak Machines ☐ Saws

Name.....

.....

Street.....

City.....State.. .....

TOLEDO SCALE COMPANY
Rochester Division
245 Hollenbeck St., Rochester, N. Y.

the activity of the enzyme phosphorylase; and (b) the adrenal corticosteroids. The C-11 steroids of the adrenal cortex increase the rate of gluconeogenesis and consequently increase the level of blood sugar. An excess of thyroid hormone increases the rate of metabolic reactions, stimulates the sympathetic nervous system, and increases the secretion of epinephrine. In the absence of the thyroid hormone, absorption of glucose from the intestines is increased.

Diabetes in Pregnancy. Since the introduction of insulin therapy, there has been no notable sterility among diabetic women. About one in every 500 pregnancies occurs in a diabetic woman. This is approximately the figure estimated for the incidence of diabetes in all women of childbearing age. However, experience has indicated that the diabetic pregnancy is subject to hazards for both mother and child. It is generally agreed that once the diagnosis of pregnancy is established, meticulous care should be given to the control of the metabolic disorder. The diet should consist of 150 to 180 gm. carbohydrate, 75 gm. protein, and an adequate amount of fat to meet the nutritional requirements. If diet alone does not control the hyperglycemia and glycosuria, protamine zinc, globin, or NPH insulin may be used. Because of the lowered renal threshold for glucose during pregnancy, urinary examinations alone are unreliable indices and frequent blood sugar determinations are necessary. The first few days of life are crucial for the infant of the diabetic mother. If the infant survives, improvement thereafter is rapid.

NUTRITION REVIEWS

Vol. 12, February, 1954

*Infantile malnutrition in Indonesia. H. A. P. C. Oomen.—p. 33.

*The energy cost of muscular exercise.—p. 36.

*Fecal and plasma lipids on fat-free diets.—p. 37.

*Energy intake and nitrogen metabolism.—p. 45.

Vitamin B_6 deficiency and dietary protein.—p. 46.

Infantile Malnutrition in Indonesia. The weak point in the nutritional structure of Indonesia is the young child from one to four years old. It is probable that most cases of malignant malnutrition develop on a diet which contains 500 to 800 calories and not more than 10 to 20 gm. protein, practically all of vegetable origin, mainly rice. This poor nutritional pattern also explains the growth retardation so often seen in Indonesian toddlers. Kwashiorkor is common and a large percentage of such patients die, although improvement in moderate cases is usual. Another nutritional problem is xerophthalmia. It is believed, on clinical evidence, that there is a certain conditioning in the manifestation of a vitamin A deficiency which depends not only on the intake of the vitamin or provitamin, but especially on the intake of protein. However, it is often difficult to decide whether a case of malignant malnutrition is caused by nutrition alone, or also by infectious diseases.

Energy Cost of Muscular Exercise. There is a brief review of the influence of body size, sex, age, and climate on food energy needs. It is shown that each of these factors conditions basal metabolic requirements. The effect of food on energy expenditure in the basal state as well as during physical exercise was determined. In a single subject it was demonstrated that a high-protein diet caused a greater increase in energy expenditure than one which was high in content of either carbohydrate or fat, or which was a usual mixed diet. The energy expended in the standard exercises of stepping and walking were compared by statistical tests with the weight, height, age, sex, race, and resting metabolism of the subjects. Of these characteristics only one, that of body weight, importantly conditioned the metabolic cost of exercise.

Lipids on Fat-Free Diets. Reinvestigation of the source of fecal lipids has been made in an attempt to determine whether such lipids in man are derived from gastrointestinal secretions or from dietary fat. Various diets were given to human subjects, and feces were analyzed for dry matter, total lipids, total and types of fatty acids, and for other constituents. These studies suggested that the amount of fat in the diet largely, but not completely, influences fecal lipid excretion. Since lipids continued to be excreted during the ingestion of a lipid-free diet, it appears that there is a certain portion of fecal lipid which is derived from such sources as secretion, desquamation, or bacterial synthesis.

Energy Intake and Nitrogen Metabolism. Nitrogen metabolism was studied in rats by using diets containing no protein but furnishing a variable caloric intake and diets adequate in protein with variable caloric content. These experiments showed a linear relationship between energy intake and change in body weight, the influence of added energy intake being greater with diets containing protein than with the protein-deficient ration. Increasing the caloric intake, whether from carbohydrate or fats, resulted in an increased nitrogen balance in the animals receiving the protein-containing diet. The addition of either carbohydrate or fat to a protein-containing basal ration resulted in an increased nitrogen content of the liver. Brief reports are also given on the influence of energy intake on ribonucleic acid metabolism and the experiments on the incorporation of inorganic P^{32} into ribonucleic acid.

PROCEEDINGS OF THE NUTRITION SOCIETY

Vol. 12, 1953

Early investigations of scurvy and the antiscorbutic vitamin. H. Chick.—p. 210.

The discovery and chemistry of vitamin C. C. G. King.—p. 219.

The occurrence of vitamin C in foods. M. van Eekelen.—p. 228.

*Ascorbic-acid deficiency in experimental and surgical subjects. J. H. Crandon, S. Mikal, and B. R. Landeau.—p. 273.

*Ascorbic acid in relation to cold, scurvy, ACTH and surgery. R. M. Kark.—p. 279.

Ascorbic-Acid Deficiency. From analyses of blood and tissues in surgical patients, it appears that blood ascorbic acid levels are of value in estimating deficiency of this vitamin. The more or less predictable relationships between blood and tissue ascorbic acid seen in acute deprivation experiments in otherwise normal individuals are not found in the sick patient. The dissimilarities of blood findings in experimental subjects and sick patients are at least partially the result of local tissue stress and variable, small, uncontrolled intake in the latter. In the surgical patient, plasma ascorbic acid below 0.2 mg. per 100 ml. is suggestive of serious ascorbic acid deficiency. However, with plasma ascorbic acid below this level, wound healing has been observed to occur, provided the buffy-coat ascorbic acid remained about 8 mg. per 100 gm. and there was no wound infection or other increased local tissue stress. Scurvy, in many cases, appears to be a manifestation of marked ascorbic acid deficiency plus local tissue stress.

Ascorbic Acid and Cold, Scurvy, ACTH, and Surgery. Evidence is presented which indicates, as far as man is concerned, that the stress of cold does not increase ascorbic acid requirements significantly; that there is nothing to indicate that adrenal function is curtailed as a result of ascorbic acid deficiency; and that there is no evidence that the ascorbic acid retention seen after operation is due to adrenal activity. A natural experiment in man gave convincing evidence that adrenocortical activity does not increase ascorbic acid requirements to any significant degree. A search was made of the literature and questionnaires sent to a number of endocrinologists, but no reports were found of the coexistence of scurvy and Cushing's syndrome.

PUBLIC HEALTH REPORTS

Vol. 69, February, 1954

*Opinions on chemicals in foods and food sanitation problems.—p. 203.

Opinions on Chemicals in Food. The viewpoints expressed by six panel participants on the problem of chemicals used as additives in foods are given. The possible chronic effects of additives are cited, and the Food and Drug Administration's position on food additives is reviewed. Some of the problems which confront the toxicologist are stated. Food additive controls are needed, it is thought, before some incident with serious consequences occurs. Six prerequisites for cooperative programs which include gaining support of individuals and planning group action were outlined. It was recommended that a laboratory technician be included as a working member of the physician-sanitarian-technician team investigating food-poisoning cases.

SOUTHERN MEDICAL JOURNAL

Vol. 47, March, 1954

*The effect of improved medical and obstetrical care upon fetal and maternal mortality in pregnant diabetics. C. E. Flowers, Jr., and L. M. Levitt.—p. 215.

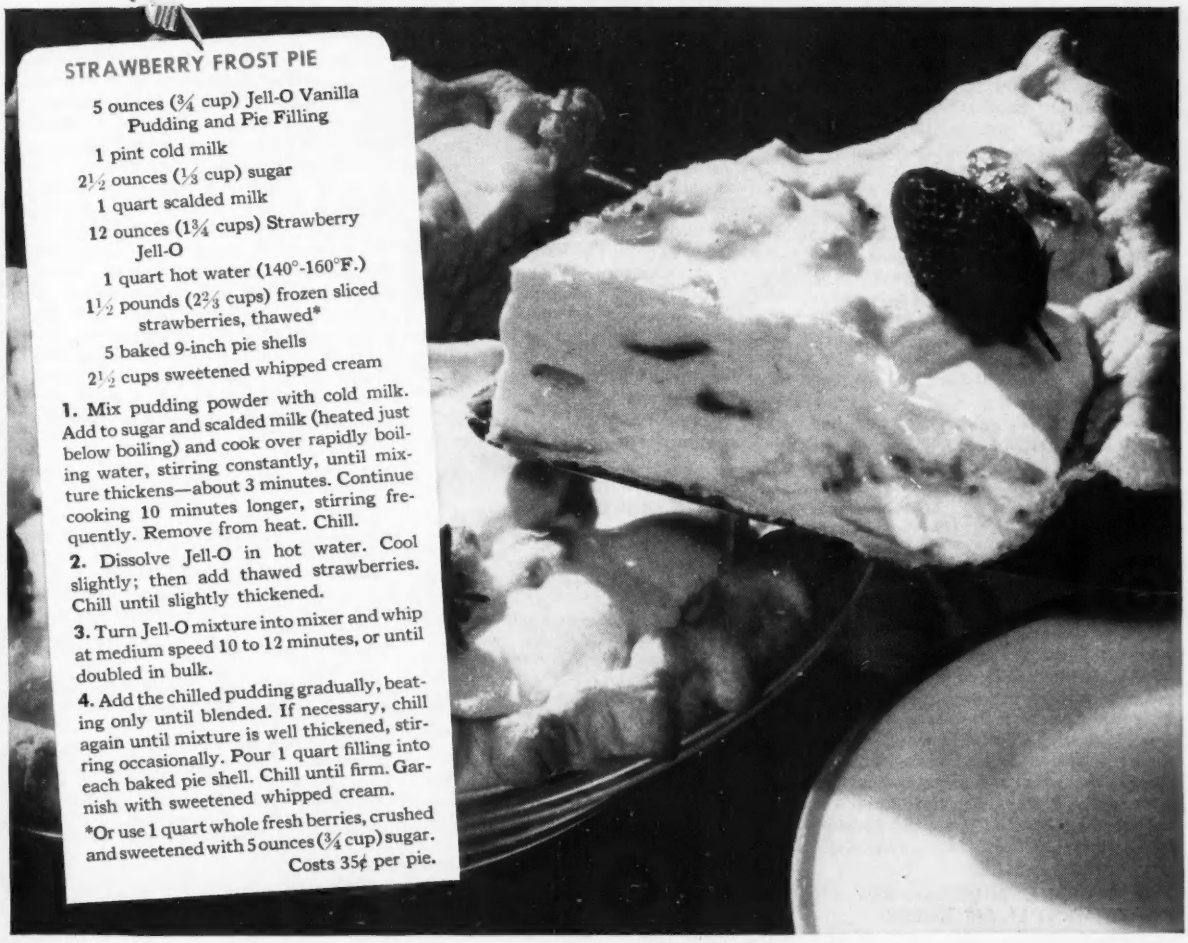
*Serum cholesterol fractionation studies. J. C.

BRAND-NEW! STRAWBERRY FROST PIE

Here's a great new pie idea that combines the tangy flavor that customers look for in a strawberry dessert with the rich and creamy texture they usually find only in pies that cost a great deal more.

You simply combine fresh or frozen berries, flavorful fruit Jell-O gelatin, and smooth, economical Jell-O Vanilla Pudding—and get a luxury dessert that costs as little as 35¢ per pie with the whipped cream garnish!

Frost Pies are another example of the hundreds of inexpensive dessert ideas developed by the General Foods Institution Kitchen to help you serve brighter meals and still keep food costs low. If you've never tried them, start with this one.



STRAWBERRY FROST PIE

5 ounces (¾ cup) Jell-O Vanilla Pudding and Pie Filling
1 pint cold milk
2½ ounces (⅓ cup) sugar
1 quart scalded milk
12 ounces (1¾ cups) Strawberry Jell-O
1 quart hot water (140°-160°F.)
1½ pounds (2⅔ cups) frozen sliced strawberries, thawed*
5 baked 9-inch pie shells
2½ cups sweetened whipped cream

1. Mix pudding powder with cold milk. Add to sugar and scalded milk (heated just below boiling) and cook over rapidly boiling water, stirring constantly, until mixture thickens—about 3 minutes. Continue cooking 10 minutes longer, stirring frequently. Remove from heat. Chill.

2. Dissolve Jell-O in hot water. Cool slightly; then add thawed strawberries. Chill until slightly thickened.

3. Turn Jell-O mixture into mixer and whip at medium speed 10 to 12 minutes, or until doubled in bulk.

4. Add the chilled pudding gradually, beating only until blended. If necessary, chill again until mixture is well thickened, stirring occasionally. Pour 1 quart filling into each baked pie shell. Chill until firm. Garnish with sweetened whipped cream.

*Or use 1 quart whole fresh berries, crushed and sweetened with 5 ounces (¾ cup) sugar.

Costs 35¢ per pie.

Now's the time for STRAWBERRY FROST PIE!

Buy Jell-O products from your wholesaler—or write to General Foods Corp., White Plains, New York.

Jell-O is a registered trade-mark of General Foods Corporation

General Foods Corporation
Institution Food Service, Dept. J5
White Plains, New York

FREE OFFER! Send for more of these glamorous Frost Pie recipes, featuring other fruits and flavors. Just fill in this coupon and mail today!

Name_____
Street_____
City_____ Zone_____ State_____

Forbes, P. D. Camp, W. R. Jordan, O. M. Petterson, and C. Korn.—p. 226.

Mortality in Pregnant Diabetic Women. Good diabetic management, reasonable obstetrical judgment, and intelligent care of the newborn can effect substantial reduction in fetal and maternal mortality. In a series of sixty-two pregnant diabetic women, the fetal mortality was reduced from 54 to 15 per cent while maternal loss was reduced from 15 per cent to zero. Patients were maintained on an adequate prenatal diet providing 30 calories and 2 gm. protein per kilogram of body weight. Caloric intake was reduced in these patients, using the ideal rather than the actual weight as a baseline. Weight gain was limited to 20 lb. The importance of a low-sodium diet and vitamin supplementation is stressed. The usual carbohydrate intake was 175 gm. during the first trimester and approximately 250 gm. during the third trimester. To prevent starvation ketosis, the carbohydrate intake was always raised in patients manifesting excessive glycosuria associated with a lowered renal threshold. Short- and long-acting insulins and mixtures of each were fitted to the need of the individual. No attempt was made to compromise the feeling of well-being in the patients. Blood sugars were never intentionally reduced to physiologic levels. Because of renal glycosuria, urinary sugar is considered of little importance in the regulation of pregnant diabetic women.

Serum Cholesterol. A study has been carried out on the cholesterol extractability of lyophilized serum from people of low-income groups of various ages. The figures were compared with those for business executives and physicians. Similar fractionation was carried out on patients with cardiovascular conditions. The results show that cholesterol extractability increased with age and was accentuated in the higher income subjects. The greatest percentage of elevated extractions were found in patients with myocardial infarctions, or with atherosclerotic coronary heart disease. It is suggested that a high-fat intake in relation to total caloric intake may be important in bringing about the abnormally high concentration of the cholesterol extracted from the lyophilized serum.

THE TOHOKU JOURNAL OF EXPERIMENTAL MEDICINE

Vol. 59, December 25, 1953

*Clinical experiments of orally administering therapy of casein and defatted soya-bean hydrolysates. S. Saito.—p. 97.

Protein of Casein and Soya-Bean Hydrolysates. Patients with various diseases were given casein amino acids, defatted soya-bean amino acids, and a mixture of both by mouth. Nitrogen balance, changes of symptoms, and other items were studied. Results showed that compared with defatted soya-bean amino acids, casein amino acids are a much more excellent source of nitrogen. Also, they were not only efficacious in cirrhosis of the liver, but also exercised good influences on other diseases by increasing vigor and weight. Neither casein amino acids nor defatted soya-bean amino acids aggravated the conditions of the patients.

ADULT LEADERSHIP

Vol. 2, February, 1954

*Growth by association. J. Watson and K. Benne.—p. 12.

*Scientists and sweetbreads. J. Watson.—p. 24.

Growth by Association. Leaders have the task of helping build groups which elicit and foster personal growth. Group association may contribute to members' growth in three ways: regarding concept of self, concept of others, and understanding the external environment. Each phase is discussed in some detail.

Group Decision. Efforts to improve food and work habits, as well as to encourage volunteers for psychologic experiments, have shown that group decision is more effective than lectures or personal consultation. Although unanswered questions still exist, three conclusions may be drawn: (a) people are more likely to accept a changed behavior pattern which they themselves have helped in planning; (b) they are more likely to change their behavior if they see others like themselves planning and endorsing such a change; and (c) they are more likely to act if motivated to make their decision at once. Group decision, of course, is useful only in certain instances and should be used accordingly.

AMERICAN RESTAURANT MAGAZINE

Vol. 38, March, 1954

Colorful dishes for greater customer satisfaction.—p. 44.

*How to build bigger restaurant volume. Fifth of a series of 12 articles. G. L. Wenzel.—p. 51.

*Essential records for restaurant success. G. Podd.—p. 65.

*Small quantity cookery creates bigger vegetable demand. B. A. Cooke.—p. 92.

*Eggs-actly planned dishes for any time of day. L. D. Freeman.—p. 134.

Food Quality Control. This author suggests limiting entrées to a few best sellers; reducing them to rigid specifications; setting up production, yield, and cost standards; and training a few competent persons to follow them. Specifications and standards are tabulated for twenty-one popular entrées.

Bookkeeping and Accounting. Records are briefly and simply explained for the restaurateur with little knowledge of bookkeeping. The essential general records are: cash receipts book, cash disbursements book, purchase book or record of unpaid bills, general journal, and general ledger. Cash and sales control, payroll, and income tax are discussed. A daily food cost record is strongly advised, even for the smallest operation. Balance sheets and operating statements are also noted and samples of each are shown.

Vegetable Cookery. Preparing and cooking vegetables in relatively small quantities improves their texture, flavor, and appearance. Specific rules are given for mashed and boiled potatoes, pod vegetables, beets, asparagus, snap beans, carrots, and corn, as well as general suggestions on cooked green vegetables. Holding vegetables after cooking or raw vegetables after cutting impairs their food value and attractiveness.

Eggs. Grades, sizes, and weights of eggs are noted, and rules are given for proper poaching, cooking, and frying. Suggestions and recipes are included with photographic illustrations, for serving eggs at any time of day.

COLLEGE AND UNIVERSITY BUSINESS

Vol. 16, March, 1954

*Dayton remodels kitchen and dining room facilities. J. F. Clarke.—p. 47.

Renovated Food Service. Student food service at the University of Dayton was switched from dining room to cafeteria style; faculty and other non-student dining rooms were relocated; and a new stainless metal kitchen was included in the $120,000 project, completed last year. Food service is now centered in the new kitchen and three dining areas surrounding it. Hours are staggered for the 1000 students eating lunch; breakfast and dinner customers approximate 600. Some 20 full-time employees and 15 students are expected to be needed to operate the cafeteria. The design of the new kitchen and dining areas is described, floor plans are shown, and photographs illustrate various areas.

FOOD ENGINEERING

Vol. 26, February, 1954

*Sessions for and with your supervisors. A. C. Croft.—p. 61.

*Better dehydrated soup mixes. FE Staff.—p. 79.

*Vanilla-like synthetic cuts ice cream flavor costs. W. S. Arbuckle, L. F. M. Cremers, and D. J. Seely.—p. 84.

*Upsurge: in canned soft drinks. G. F. Kay.—p. 86.

*Better rice for the world. R. R. Williams.—p. 96.

Step type modernizing cuts cheese costs. V. N. Smith.—p. 97.

*What it takes to get more for your labor dollar. Editorials. F. E. Lawler.—p. 118.

Vol. 26, March, 1954

*New enzyme tablets benefit both product and process. D. W. Donaldson.—p. 58.

*Paper vs. glass. "Costwise, where do the decimal points really fall?" C. W. Hall.—p. 101.

Training Supervisors. Meetings with supervisors should be informal and labeled as committee rather than training sessions. Initial meetings should cover company products and their manufacture, equipment necessary for plant operation, company financial structure, organization of operations and responsibilities, over-all policies, and future plans. Groups should be small, and programs should be geared to the educational level of the group. Subjects to be discussed should be announced in advance, and perhaps topics can be assigned to individuals. Management will find it receives as much and possibly more training from the meetings than the supervisors do.

Dehydrated Soup Mixes. The key to success in the manufacture of top

pure sweetness . . .

without calories

'Saxin' is prepared especially for diabetics, overweight persons, and those who can take little or no sugar.

'Saxin' gives a pure, sweet taste to all foods and beverages; it keeps its flavor when boiled or baked; even cooking with acid fruit does not alter its taste.

Freedom from metallic aftertaste is an outstanding characteristic of 'Saxin'.

Write for a free professional sample bottle of 200 'Saxin'

'Saxin'® brand saccharin

Supplied in Bottles of 200 and 1,000
Each product is equivalent in sweetening power to one teaspoonful or one lump of cane sugar.

Burroughs Wellcome & Co. (U.S.A.) Inc., *Tuckahoe 7, N. Y.*

Break Menu Monotony
without breaking rules—use JELL-O's

LOW-CALORIE D-ZERTA

... it's sweet but Sugar-Free!

Wonderful D-ZERTA, made by the makers of Jell-O, comes in the six delicious Jell-O flavors, delightfully sweetened with saccharin... it contains only 12 calories per serving (sugar-sweetened gelatins give you up to 83 calories per serving!) ... it's absolutely carbohydrate free... *and it costs only 4¢ to 5¢ a serving!* Take the boredom out of low-calorie and low-carbohydrate diets—treat your patients to D-Zerta!

D-Zerta is now available in the dietetic section of grocery stores! Look for the new package containing 3 or 10 two-portion envelopes. Complete nutrition information, plus some exciting new recipes with every package!

D-ZERTA
This box contains 3 envelopes—2 generous servings in each envelope
D-ZERTA
DELICIOUS GELATIN DESSERT • SWEETENED WITH SACCHARIN • CARBOHYDRATE FREE
FOR LOW-CALORIE DIETS
IMITATION STRAWBERRY FLAVOR
MADE BY THE MAKERS OF JELL-O DESSERTS
GENERAL FOODS CORPORATION • JELL-O DIVISION, Address: New York 17, N. Y.

A Product of General Foods

Made by the makers of **JELL-O**

Jell-O is a registered trade-mark of the General Foods Corporation

PERK UP YOUR PATIENTS WITH THIS LEMON FRUIT D-ZERTA

Dissolve 7 grams Lemon D-Zerta in 1 cup *hot* water. Chill. When slightly thickened, add:

2 tablespoons (30 grams) drained, pitted, quartered unsweetened cherries (red or light),

2 tablespoons (30 grams) drained, diced unsweetened pineapple (cooked or canned). Divide evenly to fill 2 molds or sherbets and chill until firm. Makes dessert or salad.

quality soup mixes lies in the selection of top quality ingredients and double-checking for conformity to standards, as well as in the careful scaling, formulation, and blending of ingredients. The check on proper moisture control is of prime importance. Dehydrated vegetables and meats with excessively low moisture content will impart a "strawy" property to the finished product. Dehydrated soups are obtainable in mixes that are sugar-free, salt-free, fat-free, low in seasoning, high in calorie value, or vitamin-enriched.

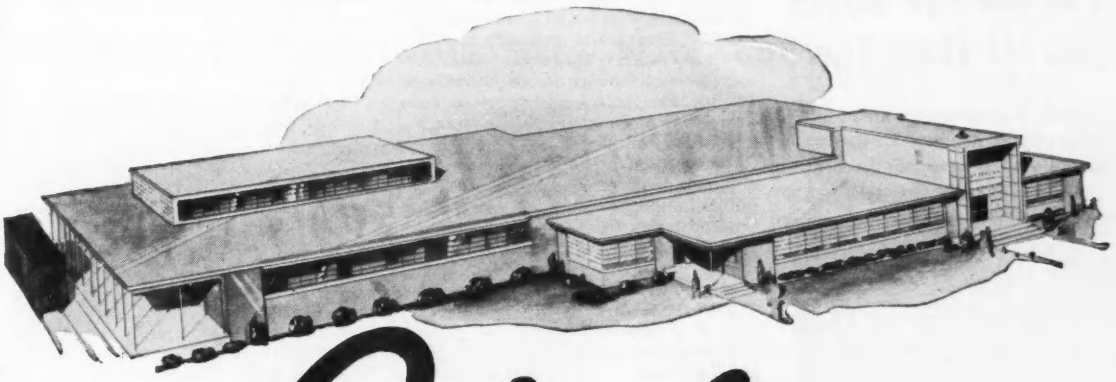
Vanilla-Like Synthetic for Ice Cream. After careful laboratory testing, it has been determined that the flavor of vanilla ice cream, whether obtained from natural vanilla or vanillin, is enhanced by use of a recently perfected vanilla-type flavoring material—propenyl guaethol. This product has a rich, sweet, delicate aroma and a pleasant vanilla-like taste. It has been evaluated on the basis of flavor strength equivalent, and quality of odor and flavor in comparison with natural vanilla extract, vanillin, ethyl vanillin, and coumarin. Its addition to other mixes improves the flavor of chocolate, nut, and "butter" type ice creams. Its use may reduce flavoring cost by as much as two-thirds.

Canned Soft Drinks. Carbonated drinks "bottled" in tin instead of glass are the West Coast's new contribution to the beverage field. Technical details of development and manufacture of the product and its containers are given. Advantages of the canned drinks are: lighter shipping weight; less shipping and storage space; and an opaque container to block any harmful effect of light. Disadvantages include higher container cost and special problems of can design and lining as well as various operating problems, discussed in this article.

Better Rice for the World. Within a year after the distribution of enriched rice, the health of the population of the East Coast of Bataan had shown outstanding improvement. Beriberi symptoms were reduced from 13 to 1.5 per cent, and thousands were freed of hampering illness. Rice enriched by coating the grains with a highly vitaminized premix has many advantages. The rice appears and tastes no different, and the necessary equipment is simple and low-cost. At present thiamine, niacin, and iron have been used but presumably other vitamins and minerals such as ascorbic acid and amino acids can be added where the populations require them.

More for Your Labor Dollar. How to get more for your labor dollar is a difficult problem with many facets. These factors fall logically into four types: (a) morale—or keeping the worker happy; (b) incentives—including such things as merit ratings and suggestion systems; (c) aids to productivity—including time and motion studies, good supervision, and so on; and (d) avoidance of production delays—through safety and maintenance programs, for example.

Enzymes Control Bread Quality. Standardized fungal enzymes—amylase (diastase) and protease—are now avail-



A NEW *Ideal* LOCATION!

. . . our new home

We're proud of our new home . . . This brand new factory building, designed especially to meet our needs, embodies many long desired details of architecture and arrangement. It has been planned throughout to facilitate the manufacture of the specialized Ideal Equipment now in production and on the drawing boards for the future. Our new ultra-modern, custom-built factory will be an immeasurable benefit to our manufacturing operation and will help us to make even better deliveries of our products to our customers.

. . . our new address

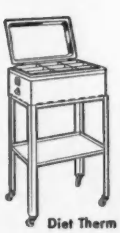
The Swartzbaugh Manufacturing Company, Murfreesboro, Tennessee, will be our address as of April 1, 1954, and thereafter. We are removing all our manufacturing equipment, offices and key personnel to Murfreesboro where exist many environmental advantages not available elsewhere. We like the city, the people and the area and will find still more satisfaction and inspiration in rendering a greater measure of service in our world-wide field of sales and service operations.

This begins a new and still more successful era in the long and constructive history of our company. Founded in 1884 it continues to be looked upon as a leader in patient feeding systems for hospitals, an honored tradition in the field of nutritional therapy.

THE SWARTZBAUGH MFG. CO.
MURFREESBORO, TENN.

Food Conveyors

Formula Sterilizers

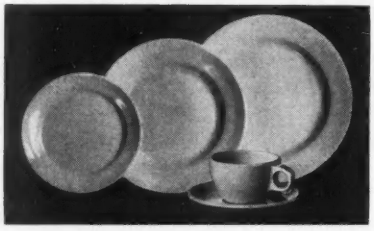

Diet Therm

Tray Conveyors

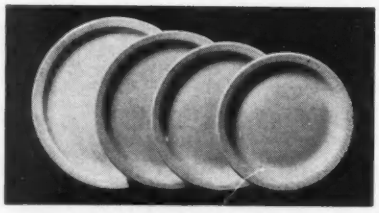
Heat Therapy Equipment

cut breakage costs to an all-time low!

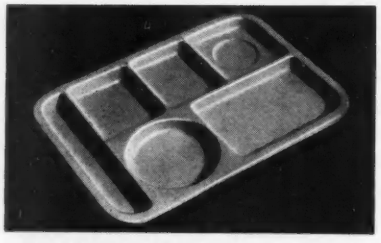
More than 1000 schools and hospitals all over the country are getting better service at greater savings with this line. How about you?



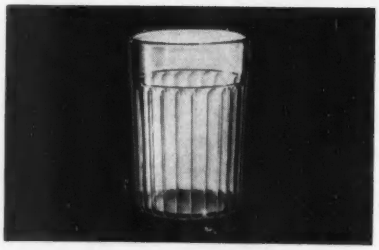
ARROWHEAD
Heavy duty dinnerware of non-chipping Melamine plastic in beautiful pastel colors. Wide rim design.



EFFICIENCY WARE
Top quality economy dinnerware. Sturdy, durable Melamine plastic. Light in weight; easy to handle.



ARROWHEAD CAFETERIA TRAYS
Plate and tray all in one. Easy to wash. Easy to stack. Space-saver, labor-saver, money-saver. Won't break!



NEW **CRYSTALON** TUMBLERS
Shatterproof! Safe in automatic dishwashers. Won't chip! 4 sizes: 12-oz.; 10-oz.; 8-oz.; 5-oz.

WRITE FOR SAMPLE
Ask your jobber or send for catalog

international molded plastics, inc.
Dept. ADA 554 • Cleveland 9, Ohio

able as concentrated tablets for bakers' use in controlling bread quality and uniformity. The tablets are easily dissolved in water, which is then added with other ingredients to sponge dough. Other benefits include: better hydration and development of doughs; easier mixing and machining of doughs; improved gas formation and bread-toasting qualities; elimination of errors in weighing; and minimum space requirements for storage. Specific properties of the two enzymes are discussed, and a table shows the number of amylase and protease tablets required in various dough formulas.

Milk Cartons vs. Bottles. Eight dairies underwent a time and motion analysis of filling operations to determine whether the frequent "extra cent a quart" for milk cartons is justified. Results are presented, with recommendations for further improvements and savings, and graphs show the cost of each operation.

HOSPITAL MANAGEMENT

Vol. 77, February, 1954
*Working out a menu plan. E. Driscoll.—p. 72.
Vol. 77, March, 1954
*Be realistic—choose equipment carefully. G. H. Trimble.—p. 86.

Nutrition Clinic. Patients are *people*, not just cases, at the Nutrition Clinic, Billings Memorial Hospital, Chicago. The nutritionist collaborates with the patient in planning menus based on his likes and dislikes, familiar foods served at home, economic status, and in many cases religion and nationality. Examples are given of individual reducing problems. For patients with diabetes, also, food preferences are adhered to as closely as possible. Patients are helped to gauge their food needs without weighing every item. After the food pattern and menu plan are established, insulin intake is adjusted to diet rather than vice versa. Motivating patients to change eating habits which are causing or aggravating an illness is the primary focus of attention.

Choosing Equipment. Initial savings on equipment should result from eliminating unnecessary items, and not from sacrificing quality or labor-saving factors. And, such savings are not the whole story; reduced operating costs reflect good planning. Realistic planning involves determining the dietary department's functions in patient care and the operations necessary to carry them out. A list of data about the hospital must be prepared. As an example, data are given for a hypothetical hospital, and their effects on planning storage and equipment are noted. Centralized service, unified menus, work stations, equipment selection, and miscellaneous points are covered for this hospital.

HOSPITALS

Vol. 28, March, 1954
*A short cycle menu can be successful! L. C. Poley.—p. 118.

Short-Cycle Menu. At Denver General Hospital, a three-week menu cycle has been tried for three years. The short-cycle menus are carefully planned to be nutritionally adequate and completely satisfying. In the beginning, a one week's menu plan was used. It was later expanded to two weeks, and then three. The three-week schedule correlated best with the dietitians' work schedules and gave a longer span between repetitive menus in the cafeterias. The menus are revised three or four times a year to adjust for seasonal foods. Cafeteria menus with multiple choice of entrée are used as the basis for the patient menus. Results of this program have been favorable. There has been improvement in quality and in more economical use of equipment through standardization of recipes and predetermined work assignments of dietary personnel.

HOTEL MANAGEMENT

Vol. 65, February, 1954
*Processed and pre-portioned foods. M. Batey.—p. 55.
*15 ways to get ahead. W. F. Werener.—p. 62.

Processed and Pre-portioned Foods. In food service, personal likes and dislikes of patrons result in leftovers and make-overs. Food managers know the waste of unused leftovers and the increased cost of made-over foods through extra labor, added ingredients, and loss of materials. The solution to these problems is the insuring of accurate portion control and uniform quality. This can be done by using the processed and pre-portioned foods, such as frozen pre-fabricated meats and fish (raw or pre-cooked); canned meats, specialties, and entrées; bases and concentrates (dry or fluid); and pre-processed and cleaned fresh, canned, or frozen vegetables and fruits.

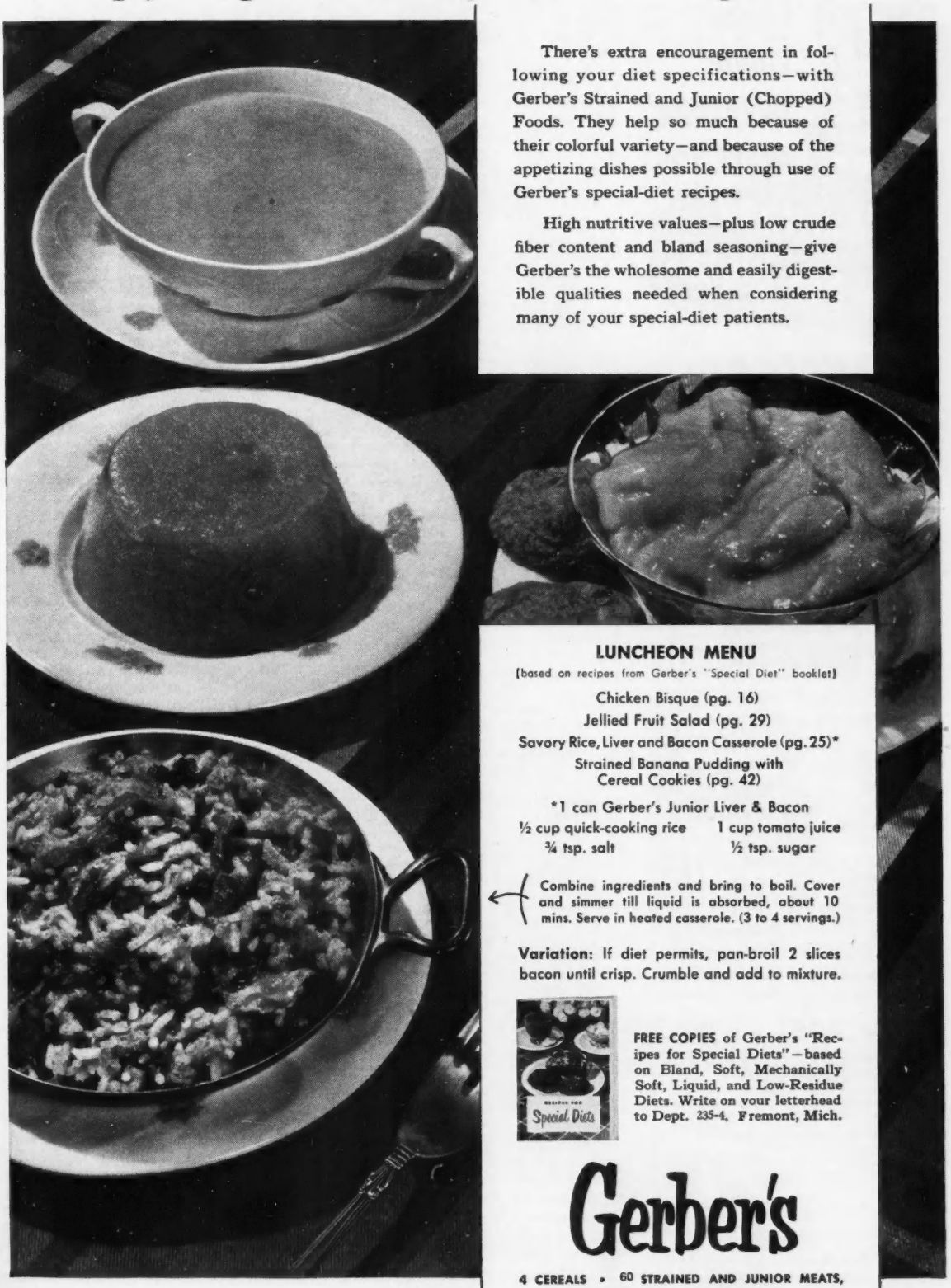
How to Get Ahead. To advance far in any kind of work one must be enthusiastic and interested. Fifteen basic rules of conduct to help young people achieve personal advancement are listed.

INSTITUTIONAL FEEDING AND HOUSING

Vol. 2, February, 1954
*Dishwashing equipment.—p. 6.
*Is the taste-sense a reliable guide to food selection? R. C. Hockett.—p. 9.
*Seven things to look for when you buy uniforms.—p. 10.
*U. S. standards in buying processed fruits and vegetables. E. T. Greeley.—p. 14.

Dishwashing Equipment. The dishwashing unit, so important to every food service, needs to be planned with five points in mind: (a) relation of layout to flow of dishes, (b) available utilities and sewer connections, (c) service requirements, (d) type of food service, and (e) future growth. There are two major types of dish machines in use: the immersion type which will handle up to 2000 dishes per hour and the spray type which ranges in capacity from 450 to 1500 dishes per hour. Dish machines now have a variety of auxiliary equipment available to help increase their efficiency. A check list for a dishwashing system is given. Photographs illustrate various types and features of equipment.

To help your patients stay with their special diets



There's extra encouragement in following your diet specifications—with Gerber's Strained and Junior (Chopped) Foods. They help so much because of their colorful variety—and because of the appetizing dishes possible through use of Gerber's special-diet recipes.

High nutritive values—plus low crude fiber content and bland seasoning—give Gerber's the wholesome and easily digestible qualities needed when considering many of your special-diet patients.

LUNCHEON MENU

(based on recipes from Gerber's "Special Diet" booklet)

Chicken Bisque (pg. 16)

Jellied Fruit Salad (pg. 29)

Savory Rice, Liver and Bacon Casserole (pg. 25)*

Strained Banana Pudding with Cereal Cookies (pg. 42)

*1 can Gerber's Junior Liver & Bacon
½ cup quick-cooking rice
¾ tsp. salt
1 cup tomato juice
½ tsp. sugar

Combine ingredients and bring to boil. Cover and simmer till liquid is absorbed, about 10 mins. Serve in heated casserole. (3 to 4 servings.)

Variation: If diet permits, pan-broil 2 slices bacon until crisp. Crumble and add to mixture.

FREE COPIES of Gerber's "Recipes for Special Diets"—based on Bland, Soft, Mechanically Soft, Liquid, and Low-Residue Diets. Write on your letterhead to Dept. 235-4, Fremont, Mich.

Gerber's

4 CEREALS • 60 STRAINED AND JUNIOR MEATS, VEGETABLES, FRUITS, DESSERTS

Natural lemon flavor beverage costs you less than 2¢ per glass

INSTANT

Citro Crest

FOR ALL LEMON FLAVOR USE

When costs are important, quality essential, and budget is boss, Instant Citro Crest is your best friend. One 11-oz. jar will make 8 gallons of "ADE" type beverage for approximately 22¢ including sugar. Easy to mix, won't settle in solution, and CITRO CREST will "keep" like any staple.

NAVY PIER CHICAGO — *Come to the 35th Annual* NATIONAL RESTAURANT Convention and Exposition — MAY 10 to 14 1954

BOOTH No. 1412

NATURAL FLAVOR from real lemon juice solids.

CONVENIENCE. Use dry or in solution. Easily stored.

DEPENDABLE. Unchanging flavor, won't settle in solution.

ECONOMICAL. 11-oz. jar makes 1 gallon "squeezed strength" or up to 8 gallons of beverage.

Get this terrific offer! It pays you $3 while it is proving the superiority of CITRO CREST!

Save 20% **on this VALUABLE COUPON**

CALIFORNIA PRODUCTS OF CHICAGO
1553 E. 79th Street, Chicago 19, Illinois JA-5

Entitles you to a $3.00 discount on the price of $15.00 per dozen 11 oz. jars of Citro Crest Lemon or Orange flavor Crystals. This offer is for the purpose of introducing you to the convenience of Citro Crest. This coupon must accompany your order.

Name_____

Address_____

City_____ State_____

Jobber_____

(Not Redeemable After Sept. 1, 1954)

15 YEARS OF QUALITY

DON'T DELAY—USE COUPON TODAY

CALIFORNIA PRODUCTS OF CHICAGO
1553 E. 79th Street Chicago 19, Illinois

Taste and Food Selection. Human beings appear to be born with a sound taste instinct which finds wholesome food palatable. An experiment by Dr. Clara M. Davis with babies on self-selected diets showed that they chose a balanced intake. However, emotional, social, or moral values imparted to foods may early pervert this taste sense. Probably parents' most common mistake is to fuss over getting the "right" foods into children. Institutional dietitians seldom report trouble in making children eat, because less attention is given the individual in a larger group.

Uniform Buying. The best way of making certain that money is wisely spent on uniforms is by being careful in selection of their fit, material, color, workmanship, style, accessories, and manufacturer. Each point should match the institution's particular demands.

Food Standards. Although the use of grade standards for processed fruits and vegetables issued by the U.S.D.A. is not mandatory, it is a reliable and economical aid in wise purchasing. "Grade standards for each product are developed and revised as marketing practices change, and requirements are predicated upon commercial processing and marketing practices. Research and investigations are carried out with the cooperation and assistance of processors, distributors, buyers, and others who are interested in the commercial movement of the product." Styles or types of packs, drained weight, counts, and size recommendations are other helpful features that may be given in addition to grades.

INSTITUTIONS MAGAZINE

Vol. 34, February, 1954

*Souffle salads for Lent.—p. 3.
*Use existing facilities for emergency feeding.—p. 21.
*Basic steps to dessert success.—p. 114.
*How to produce cakes with come-back appeal.—p. 119.
*Dessert specialties.—p. 124.
*Take time to plan for pie production.—p. 129.
*Set standards for patron-approved pies.—p. 134.
*How to prepare puddings that please.—p. 139.
*Flag dangerous areas by color coded system.—p. 155.
*Buyers told to watch drained weight, quality.—p. 155.

Vol. 34, March, 1954

*Sanitation—a public trust. R. R. Marsh.—p. 11.
*Use menu magic to make gourmet dishes of leftovers.—p. 34.
*Shorthanded? Then tap pool of older worker. B. Redington.—p. 45.
*Cites way to cut cost of training new employees. H. S. Hall.—p. 60.
*Pre-handle dishes for sanitary, speedy wash. L. Cantor.—p. 158.
*Describes how food managers' jobs cover safety, wages, buying. S. M. Hartt.—p. 168.

Soufflé Salads. Recipes are given for vegetable and tunafish, asparagus and egg, avocado, and cole slaw soufflé salads. Approximate costs per 4-oz. serving range from 2 to 6½ cents.

Emergency Feeding. This article points out that first plans for emergency feeding logically are built around existing public and private plants. Emergency food sources are next located. This can best be done by experienced persons in the various industries concerned.

Dessert Tips. To produce consistently good desserts, standard recipes must be used. In planning, desserts should be suited to the bulkiness of the rest of the meal. Adaptable basic recipes with imaginative sauces, frostings, and other additions are easily and successfully produced by employees. Appealing descriptions of desserts do an important job of selling.

Cakes. Simple cakes may be made into special desserts by simple decorating techniques. Cake quality is discussed, as are the principles for balancing low-sugar and high-sugar cake formulas and methods of mixing.

Dessert Specialties. Recipes contributed by various food service institutions and organizations are presented. Directions are given for fourteen items including soft and hard meringues, date torte, fruit specialites, and other desserts.

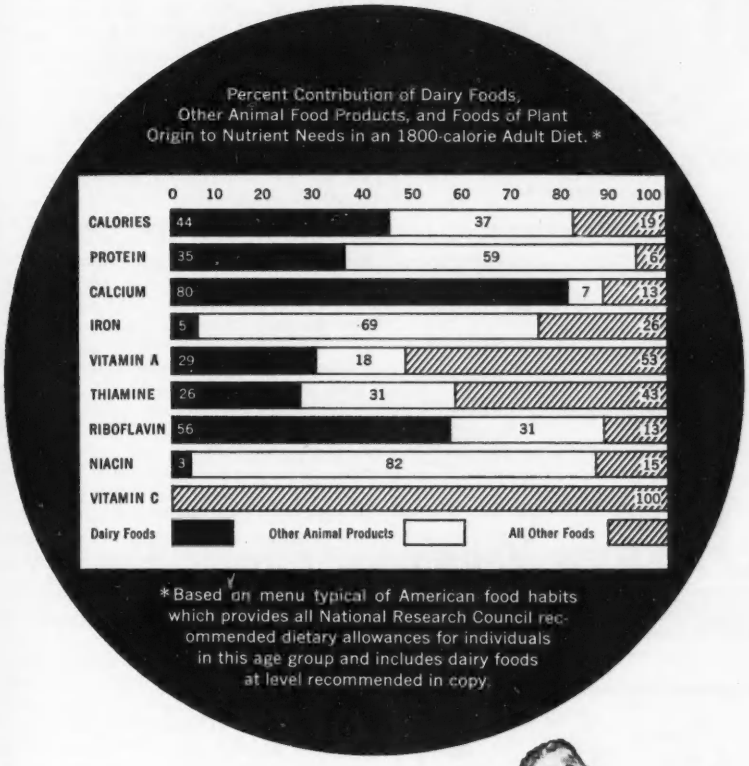
Pie Production. A good pie will go far in building the reputation of any food operation. The ingredients used, the method of blending, and the baking temperature all affect the finished product. The assembly line technique for making pies as used in one bake shop is illustrated in picture sequence. Recipes for fifteen pie specialties from food establishments in various sections of the United States are given, including pineapple angel pie, black bottom pie, frosty fudge pie, and cheese pie.

Patron-Approved Pies. New ideas will obtain patron-approval of your pies. To give a new and distinctive flavor to fruit pies, try combining two fruit flavors, i.e., blueberry and apple, peach and orange, or rhubarb and grated orange rind. To make an attractive topping for pastries, puddings, and broiled fruit, use marshmallows. When placed under direct heat, they will puff up, and add glamor. To vary pie crusts, use a crumb crust, a nut crust, a coconut crust, or a meringue shell. A chart for thickening frozen fruits for pies is presented, and many unusual recipes are listed, such as mocha nut angel pie or a Pennsylvania Dutch shoo-fly pie.

Puddings. Standard cooking techniques are important in producing a pudding with public appeal, but garnishes and toppings are equally important. Tips from experienced operators include the following: to make rice pudding even more appealing, add chopped dates, raisins, chopped peppermint candy, peanut brittle, or chocolate bits. But, be sure to make the most of these additions when listing them on the menu. To make a pudding sauce in a jiffy, use prepared pudding powder. There is glamor and flexibility in the many pudding mixes available. Time and effort can be saved when the same batch of cream filling can be used for puddings, pies, and layer cakes. Some exciting pudding recipes found in this article are: sherry almond cream, lemon cheese pudding, and steamed chocolate pudding.

Color Code for Safety. Institution managers should keep in mind the color code for safety that has been issued by the Safety Committee of the Hotel As-

...for an active 25
THROUGH RETIREMENT!


Percent Contribution of Dairy Foods, Other Animal Food Products, and Foods of Plant Origin to Nutrient Needs in an 1800-calorie Adult Diet.*
0 10 20 30 40 50 60 70 80 90 100
CALORIES 44 37 19%
PROTEIN 35 59 6%
CALCIUM 80 7 13%
IRON 5 69 26%
VITAMIN A 29 18 53%
THIAMINE 26 31 43%
RIBOFLAVIN 56 31 13%
NIACIN 3 82 15%
VITAMIN C 100%
Dairy Foods
Other Animal Products
All Other Foods
*Based on menu typical of American food habits which provides all National Research Council recommended dietary allowances for individuals in this age group and includes dairy foods at level recommended in copy.

After growth is complete and as physical activity decreases, there is a corresponding decrease in the need for food energy. With a lower energy requirement, foods must be more carefully chosen to provide essential nutrients without producing undesirable weight gain.

Weight can be lost or maintained by the adult on a diet which satisfies hunger as well as nutrient needs . . . with familiar and well-liked foods.[1,2] Such a diet contains the high quality *proteins* of dairy foods and other animal food products . . . moderate levels of *fat* and *carbohydrates* . . . and sufficient amounts of all the *vitamins* and *minerals* to meet the daily adult requirements.

Dairy foods take on added importance in a moderate to low calorie diet. Milk provides a high proportion of nutrients in relation to its calorie content.

Two and one-half cups or more of milk, or its equivalent in dairy foods—cheese, or combinations of ice cream and butter with other milk products—are recommended for inclusion in the daily diet of the adult, whether losing weight or maintaining normal weight.

1. Weight Reduction Through Diet. Chicago: National Dairy Council, 1951.
2. Young, C. M. Weight reduction using a moderate fat diet. I. Clinical responses and energy metabolism. J. Am. Diet. Assn. 28:410 (May) 1952.

The presence of this seal indicates that all nutrition statements in the advertisement have been found acceptable by the Council on Foods and Nutrition of the American Medical Association.

ACCEPTED COUNCIL ON FOODS AND NUTRITION AMERICAN MEDICAL ASSOCIATION

NATIONAL DAIRY COUNCIL

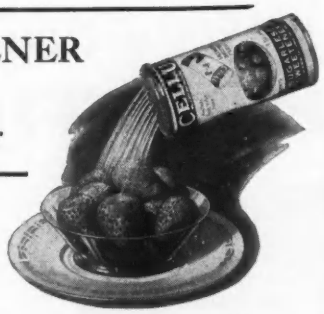
111 NORTH CANAL STREET • CHICAGO 6, ILLINOIS

Since 1915 . . . the National Dairy Council, a non-profit organization, has been devoted to nutrition research and education to extend the use of dairy products.

SUGARLESS SWEETENER

Calorie-Free

Pours Like Powdered Sugar



Cellu Sugarless Sweetener sweetens, but adds no food value. Consists of saccharin and salt in vegetable gum. Easy to pour over fruits, cereals, etc. Comes in handy 3-oz. shaker container or 20-oz. hospital size.

***Easy to Make* DIETETIC ICE CREAM *with* CELLU FREEZETTE**

Make your own sugar-free ice cream with Cellu Freezette. Package makes about 7 pints. Chocolate or Vanilla flavors.

Send for Catalog Describing Over 100 Cellu Foods

LOW CALORIE

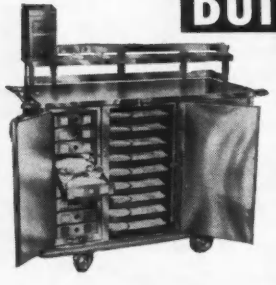
CELLU *Dietary Foods*

CHICAGO DIETETIC SUPPLY HOUSE *Inc.*
1750 West Van Buren Street Chicago 12, Illinois

You don't have to do this to serve *TEMPERATURE-RIGHT* meals

***Meals-on-Wheels* Is**

BUILT FOR THE JOB



Model 18-D-1 Hot-'N'-Cold Cart. Stainless steel; 61" long; 27" wide; counter 43" high; service shelf 6½" above counter provides for 3 hot or cold beverage containers. Cart takes trays 14"x18" up to 16"x22".

Meals-On-Wheels . . . the *only* central tray service that separates hot and cold foods logically . . . preserves the crispy coldness of *cold foods* — the piping hot goodness of *hot foods*.

The tray, cold foods and all accessories are carried *logically* in the cold compartment. Only the few foods meant to be hot are placed in the electric oven.

Don't let time and distance rob perfection from well-prepared meals. Let us show you how Meals-On-Wheels effectively bridges the gap between kitchen and patient. It's *built for the job.*

WRITE FOR INFORMATION TO → *Meals-on-Wheels* CRIMSCO INC.

1734 OAK—KANSAS CITY, MO.

sociation of New York City. Green for safety, red for danger, and yellow for caution are common color codes.

Drained Weight and Quality. Buyers are no longer paying freight on water. Therefore, in buying canned goods, consider not only the quality and price but also the drained weight. In deciding on quality, the use for which the product is intended should be considered. For example, are you buying tomatoes for soup or for use as a side dish? It may also be wise to buy for a year's requirements rather than at different periods during the year.

Sanitation. A sanitation course for food service managers, now being conducted at the University of Illinois, is summarized in a series of articles of which this is the first. Rules of civilization, government, and patron demand are discussed. General plant inspection is briefly covered and recommended as a daily practice. Future articles are to cover specific phases of sanitation.

Glamorizing Leftovers. Herbs, spices, and flavorings can inject drama into left-over dishes. Ideas are presented for: hors d'oeuvres; meat variations; vegetables and fruits; desserts and breads; and miscellaneous foods.

Women Workers over Fifty. Advantages of hiring older women in institutions are described, and various sources of recruitment are noted. Older workers who "live in" should have comfortable single rooms for adequate rest, as well as outdoor and other hobbies to prevent introspection.

Cutting Costs of Training. In "breaking in" employees, learning-by-doing is ordinarily the most productive instruction method. Speed and accuracy should be given equal emphasis. The length of training will vary according to job requirements, the employee's past experience, his ability to learn the job, and learning conditions. Therefore, costs can be reduced by simplifying jobs, selecting experienced and intelligent workers, and improving the learning conditions. Management can also increase the effectiveness of training by assigning responsibility and educating those who are to teach.

Pre-Handling Dishes. The handling of dishes from soiled-dish table to putting the dish rack through the machine is covered. Rules are given for physical requirements in the dishwashing area, space allocation, and scrapping. Scrapping might be broken down into five general classifications: manual scrapping operation, use of the overhead shower-style prewash, machine scrapping and prewash, silver scrapping and soaking, and dish machine scrapping and prewash. The methods are diagrammed.

Residence Hall Food Management. This article concludes the series on residence hall feeding by discussion of: training student employees; student employee accident prevention; scheduling and hours of work; wage plans for student employees; method of pay procedure; sick leave, provisions for substitutes, and absenteeism; financial control; and selection and care of equipment. A suggested payroll form is shown.

ADVERTISEMENT

INSIDE SCIENCE

The Vital Story of MACARONI* ENRICHMENT

by Science Writer

This is the fourth article in a series devoted to the story of cereal enrichment

Dramatic results have been recorded about the value of enrichment in improving health. From the United States, the Bataan peninsula in the Philippines, Newfoundland and many other parts of the world comes word of the great benefits which result from enrichment.

For years, some forward-looking manufacturers of macaroni and noodle products have used enrichment to make their good foods better. They know that enrichment restores important vitamin and mineral values which are unavoidably lost in milling, and they recognize their responsibility to provide the greatest health-building benefits for the public.

Enrichment is really a simple process. It adds the following essential elements to the food during manufacture.

Thiamine—also called vitamin B_1. This vitamin helps to build physical and mental health. It is essential for normal appetite, intestinal activity and sound nerves.

Riboflavin—also called vitamin B_2. This vitamin helps to keep body tissues healthy and to maintain proper function of the eyes. It is essential for growth.

Niacin—another "B" vitamin, is needed for healthy body tissues. Its use in the American diet has done much to make a serious disease called pellagra disappear.

Iron—is a mineral used in all enrichment. It is essential for making good, red blood and preventing nutritional anemia.

Products made from semolina may be enriched by two methods. One uses small square wafers which contain all the vitamins and iron necessary to enrich 100 lbs. The wafers break up in a small amount of water which is then added to the paste. For manufacturers who use the continuous press method, a powdered concentrate of the vitamins and iron, called a premix, is available. This is added by a mechanical feeding device.

Macaroni is used here in the generic sense. It includes all alimentary pastes: macaroni, spaghetti, pastina, noodles.

These are the minimum and maximum levels, in milligrams per pound, required by the Federal Definitions and Standards of Identity for enriched alimentary pastes.

	Min.	*Max.*
Thiamine (vitamin B_1)	**4.0**	**5.0**
Riboflavin (vitamin B_2)	**1.7**	**2.2**
Niacin	**27.0**	**34.0**
Iron	**13.0**	**16.5**

NOTE: These levels allow for 30% to 50% losses in kitchen procedures.

Nowadays scientists are able to "build" duplicates of many of Nature's essential complexes in the laboratory. This has happened with many vitamins. First the chemical composition is learned and the pure substance is isolated. Then a "duplicate" is made which is identical chemically and biologically with Nature's product. A vitamin is a vitamin regardless of its source just as salt is salt whether it comes from a mine or is evaporated from the sea. So efficient is large scale manufacturing that vitamins are sold at a lower cost than if they were extracted from natural sources.

The Hoffmann-La Roche people, who produce a good percent of the vitamins used in enrichment, use amazingly complex processes with scientific production controls. This requires modern, special equipment filling whole buildings, each one a city block square and many stories high.

The combination of scientific research, thorough know-how and mammoth manufacturing processes—plus the far-sightedness of leaders in the macaroni industry—is helping vitally to make good macaroni products better.

This article, reprints of which are available without charge, is published as a service to the macaroni industry by the Vitamin Division, Hoffmann-La Roche Inc., Nutley 10, New Jersey. In Canada: Hoffmann-La Roche Ltd., 286 St. Paul Street, West, Montreal, Quebec.

ADVERTISEMENT

THE MODERN HOSPITAL

Vol. 82, March, 1954

*How to make the most of frozen foods. F. Merriam.—p. 118.

Frozen Foods in Hospitals. Frozen foods, while not low-priced, can save hospitals money because they eliminate waste and minimize preparation. Portion control and unit cost are simplified as well. Nutritional data on frozen foods is incomplete, but available figures suggest they are generally equal or superior to their fresh or processed counterparts. Extensive nutritional research is now under way. Suggestions for hospital use of frozen foods are given, covering handling, storage, and cooking. Storage space is a problem with some hospitals. However, generally accurate quantitative data can be developed by determining the number of pounds to be stored and estimating on the basis of about 20 to 25 lb. frozen food per cubic foot of space.

RESTAURANT MANAGEMENT

Vol. 74, February, 1954

*Labor-saving techniques in dishwashing. A. W. Dana.—p. 40.

*Seven ways in which to prevent fires. D. Markstein.—p. 48.

*Fruit appetizers and garnishes for the first and main course. M. L. Casteen.—p. 52.

Vol. 74, March, 1954

*Analyzing your overhead costs. 3. Negotiating your new lease. C. V. Kane.—p. 42.

*Processing bakery products. M. Batey.—p. 48.

*Modern short-cuts in dishwashing practice. A. W. Dana.—p. 46.

Labor Saving in Dishwashing. A remodeled dishwashing area in a metropolitan club resulted in a lower payroll, increased efficiency, and cleaner finished products. Operation was planned so that during the peak meal period only one employee was needed to sort, stack, and prerinse dishes, which are stacked for later washing. After the serving period is over, one employee is scheduled to operate the dishwashing machine, and get all serving ware in order ready for re-use. By sorting, dishes can be racked in 14 or 15 seconds compared to 35 or 40 seconds for loading unsorted dishes.

Fire Prevention. Smoking near volatile fuels or inflammable material is not the only cause of preventable fires. Seven of the many other serious but often overlooked causes are listed and photographed for this article. They are: too many plugs in one outlet; faulty gas valves; carelessly discarded cigarettes; emptying ashtrays into wastebaskets; storing paints, thinners, and oily rags together; placing dish cloths and pot holders on a cooking range; and strike-anywhere matches.

Fruit Appetizers. Winter months do not necessarily need to be dull in regard to the use of fruits. Chilled fruit juices are inviting if served with fruit sherbet or sprigs of mint. Fresh apples and grapefruit may be combined with canned fruits, such as pineapple tidbits, orange sections, or sliced fresh cranberries. A small fruit salad may combine a slice of pineapple topped with a cheese ball rolled in nuts with watercress to garnish. Oranges and lemons may be sliced in cartwheels, crosses, or curls and topped with finely chopped parsley to give an entrée color and more appeal. A baked orange half filled with spoonsful of whole cranberry sauce is delicious with roast turkey or duck. A half broiled grapefruit does interesting things for spaghetti and meat sauce.

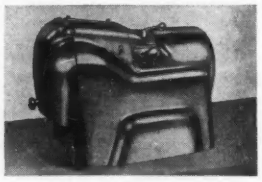
Negotiation Leases. Seven principles of negotiating leases are listed and discussed. The problem of efficient layout and most economical use of rented space is also covered. Six points to be considered in making space arrangements are listed.

Dishwashing Up-to-Date. Modern techniques and equipment which simplify dishwashing and make for improved sanitary standards are discussed in this article. Methods for racking, handling, and removing various items, as well as examples of new equipment, are sketched.

Processed Pastries. Hints are given on serving the many preprocessed baked goods on today's market. Recommendations also are included on: freezing and reconstituting left-over pastry, handling cakes, and reducing waste with canned breads. Many restaurateurs are not yet fully aware of the potentialities of packaged cake, muffin, cookie, and pie-crust mixes.

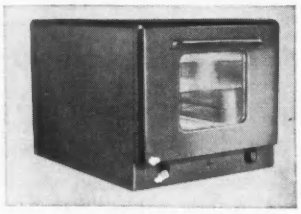
GOOD NEWS FOR DIETITIANS!

O'BRIEN FOOD SERVICE PRODUCTS SERVE FOOD FASTER, EASIER, WARMER



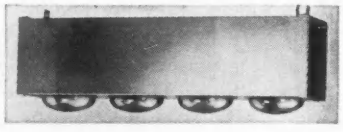
O'BRIEN DICER

(Fruit and Vegetable Cutter)
Prepares food twice as fast, at half the cost. No bruising or crushing. Food stays crisp, fresh, and colorful—APPEARS MORE APPETIZING. Speeds up to 1100 lbs. per hour. Easy to clean. Safe. Only 26″ L x 18″ H x 14″ W.



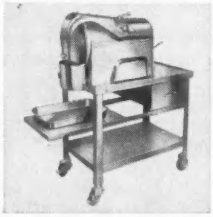
INFRA-RED ROASTER AND BARBECUE

Thermostatically-controlled infra-red heat cooks meat moist and tender in its own juice. No basting. No splattering. No turning. Practically no shrinkage. Cooks through from inside out. Holds 30 lb. turkey, or 4 chickens, or 2 hams, or 2 ribs. Stainless steel. Clear glass window.



INFRA-RED FOOD AND PLATE WARMER

Unit spotlights and heats food top to bottom. Preserves flavor. Keeps food, plates and trays warm—even if service is delayed. Choice of white or red lamps. 5000 hour guarantee.



DICER MOBILE UNIT

Stainless steel with vegetable chute and adjustable storage shelf for pans. Rubber-tired casters have brakes and ball bearings. Weighs 65 lbs. Only 29½″ H x 32″ L x 20″ W.

O'Brien Food Service Products
3925 W. SLAUSON AVE. LOS ANGELES, CALIF.

SOLVING THE PROBLEM
OF COMBINING

Quality AND Economy!

STANDARD BRANDS products are made, first of all, to satisfy the highest standards of quality. But, particularly in institutional feeding, quality alone is not enough—the problem of low-cost food is often of crucial importance.

You'll find that you can satisfy your requirements of *both* quality and economy by using the Standard Brands products shown here and by following Standard Brands recipe suggestions. Thousands of institutional kitchens are using this procedure to solve the problem of providing high-quality nutrition on a limited food budget.

For full information on Standard Brands products and service, call your local Standard Brands office—you'll find it listed in your telephone directory—or write to Institutional Division, Standard Brands Incorporated, 595 Madison Avenue, New York 22, N. Y.

INSTITUTIONAL DIVISION

STANDARD BRANDS INCORPORATED

Roasters of Chase & Sanborn Fancy Mark Coffee

News Notes

Annual Meeting—Philadelphia. Early though it may seem, an impressive number of eminent authorities in a wide variety of fields have accepted invitations to speak at the 37th Annual Meeting in Philadelphia.

They will offer you the opportunity to keep in stride with the recent developments in your area of interest. They will bring you new concepts, ideas, and solutions to on-the-job problems. From them and from discussions with your fellow members will come a renewal of inspiration and enthusiasm. You will have the satisfaction of feeling informed concerning your profession and your Association.

It may be well for you to begin soon to discuss the Annual Meeting with your associates and to make plans for attending. Whether you are associated with a hospital, health agency, college, or some other type of organization, you will discover that your colleagues as well as your staff will find the sessions of interest.

The Philadelphia Commercial Museum will be the scene of the daytime sessions. All of the meeting rooms and exhibit area will be located conveniently on the ground floor level. The Hotel Benjamin Franklin has been designated the headquarters hotel.

Additional information concerning the meeting will appear each month through September in this column. The hotel reservation form will be found on page 502 of this issue.

A. H. A. Appointment. Dr. Edwin L. Crosby of Chicago, on May 1 became Executive Director of the American Hospital Association. Dr. Crosby succeeds George Bugbee, who resigned to become President of the Health Information Foundation, New York. Dr. Crosby was associated for fifteen years with Johns Hopkins Hospital, having been Director for six years. In July 1952, he was appointed Director of the newly-organized joint accreditation commission. His other activities include: Research Director and member of the medical task force of the second Hoover Commission, an appointment he received last October; member of the Health Resources Advisory Committee and the U. S. National Committee on Vital and Health Statistics; and Consultant to the Surgeon General of the Army, Public Health Service, and Veterans Administration. Last year he served as President of the American Hospital Association.

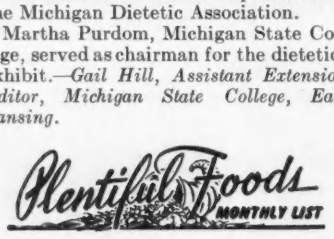
Michigan Career Carnival. Four Michigan groups cooperated in staging an American Dietetic Association exhibit at the fifth annual Career Carnival held on the Michigan State College campus, November 18 to 20. Co-sponsors for this exhibit were the Michigan Dietetic Association, Michigan Department of Health, Home Economists in Business, and Michigan State College's Department of Foods and Nutrition.

The Career Carnival is planned annually to bring closer cooperation between business, industry, and education. Originally designed for Michigan State College students, the event has now been expanded to include high school seniors from the Lansing area and students from all colleges in Michigan. Graduating college seniors get a close-up of their chosen occupational field, and at the same time undergraduates still undecided about a career are provided vocational counseling.

Sponsored by the Michigan State College Placement Bureau and organized by Michigan State College students, the carnival attracted more than 70 companies. Over 10,000 students attended. Attendance at the A.D.A. exhibit was more than 700.

Representatives from the four Michigan groups were present to answer questions on dietetic career requirements and opportunities, and a variety of career bulletins was distributed to interested students. Career pamphlets were furnished by all four participating groups. The exhibit booth itself was provided by the Michigan Dietetic Association.

Martha Purdom, Michigan State College, served as chairman for the dietetics exhibit.—*Gail Hill, Assistant Extension Editor, Michigan State College, East Lansing.*



Raisins, potatoes, and dairy products are listed by the U.S.D.A. as "special features" among plentiful foods for May. During the week of May 9 to 15, raisins will be given a special, nationwide promotion to stimulate increased consumption. Other foods expected to be in abundance are:

Fruits and Vegetables

Grapefruit—fresh and processed	Oranges—fresh and processed
Onions	Tomatoes

Protein foods and fats

Beef	Eggs
Chickens—broilers and fryers	Vegetable fats and oils

Air Force Dietitians' Conference. On February 18 and 19, twenty-three Air Force dietitians from hospitals in the continental U. S. met in the Office of the Surgeon General for a special conference. Purpose of the meeting was to discuss current policies, programs, regulations, and present trends and new developments. Areas covered by the program included: food service organization and management, staffing, financing, subsistence procurement, quality control of food, sanitation, equipment, and supply. The special speaker of the second day of the program was Dr. Margaret A. Ohlson, who, as Dietetic Consultant to the Air Force Surgeon General, discussed nutritional standards and observations on Air Force hospital food service. Col. Miriam E. Perry, Chief of the Air Force WMSC, served as conference director.

Summer Workshops in Texas. Texas State College for Women, Denton, will offer a three-week workshop from June 21 through July 10 on foods and nutrition. One week each will be devoted to the subjects, "Nutrition," "Rapid Methods of Food Preparation," and "Equipment." Each week of the workshop will carry 1 hr. graduate credit, and one, two or three weeks may be attended by any student.

The first week's work on nutrition will be under the direction of Dr. Pauline Beery Mack. The second unit on rapid food preparation will be presented by Julia Kiene, while the third week's program on use of modern household equipment will be led by Leonora O'Neal and Julia Hunter.

Correction. The JOURNAL has been informed that Indiana University will not offer this summer the two workshops listed in the March issue.

Food Show. The annual "Food Show" feature of the program of the National Restaurant Association convention (May 10 to 14 in Chicago) this year will be extended to two days. The first day will feature "beef" and the use of the less tender cuts. Fred Beard, Chief, Meat Grading Service, U. S. Department of Agriculture, will discuss the government grading service and grades of beef, illustrating his talk with slides. His discussion will be followed by a meat cutting demonstration, in which a sirloin butt will be dissected into steaks and pot roast. How to remove fibrous muscle from under the cover of the blade end of a standing rib, and how to replace the cover after this operation will also be shown. A demonstration of cooking the cuts so obtained will then be made by Jessie Alice Cline, Parkway Restaurant, Chicago; Reba Staggs, National Live Stock and Meat Board, Chicago; and Ruth Preschley, Commonwealth Edison Company, Chicago.

The second day of the Food Show will be devoted to the vegetables most commonly used in restaurants. A demonstration on quality and factors detracting from it in asparagus, broccoli, beans, beets, cauliflower, cabbage, carrots, lettuce, celery, and tomatoes will be followed by discussion on purchasing and storage. Proper cooking procedures will also be shown.

Other sessions of the program will include discussions of new developments in

at every age

CITRUS supplies needed vitamin C

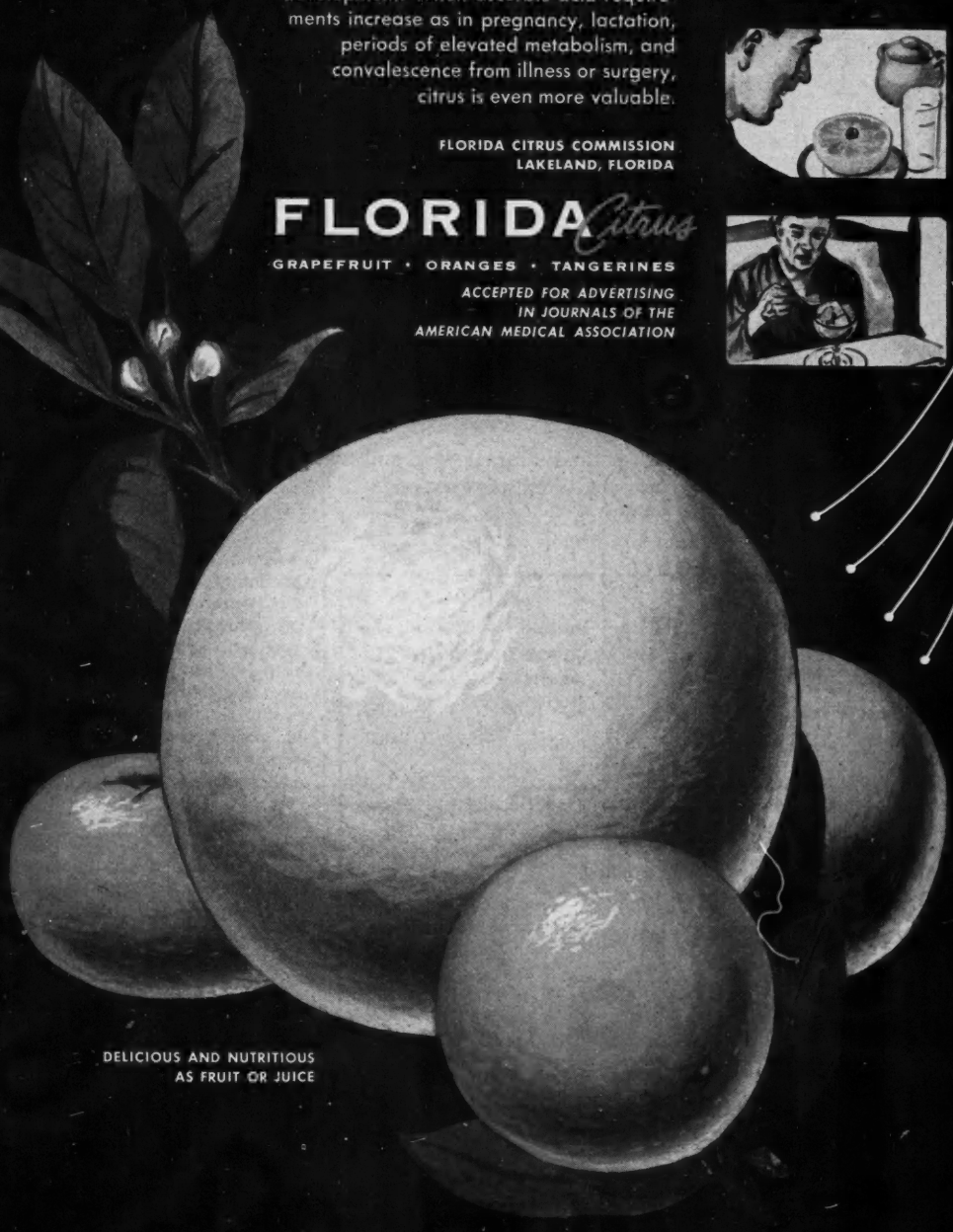
From the third week of life through childhood, adolescence, and adult life, citrus fruits can supply rich sources of vitamin C—so essential to sound health and development. When ascorbic acid requirements increase as in pregnancy, lactation, periods of elevated metabolism, and convalescence from illness or surgery, citrus is even more valuable.

FLORIDA CITRUS COMMISSION
LAKELAND, FLORIDA

FLORIDA *Citrus*

GRAPEFRUIT • ORANGES • TANGERINES

ACCEPTED FOR ADVERTISING IN JOURNALS OF THE AMERICAN MEDICAL ASSOCIATION



DELICIOUS AND NUTRITIOUS AS FRUIT OR JUICE

foods and cooking, personnel problems, college and university food service, industrial feeding, and school lunch, as well as methods of increasing sales. An added attraction will be an address by Dr. Charles Glen King, Nutrition Foundation, Inc., on "Enjoy Today's Food and Tomorrow's Health.

Symposium on Dehydration. During its annual meeting in Los Angeles, June 27 to July 1, the Institute of Food Technologists will sponsor an all-day symposium on dehydration. The symposium will open with a report of research at the U.S.D.A.'s Western Utilization Research Branch on returning volatile flavors to fruit after dehydration. By distillation, flavors of 500-fold strength have been achieved. After sealing them in an edible carrier (dextrose and other carriers) to prevent oxidation, they are then incorporated in fruit powders. The nonenzymatic browning reaction, as it relates to browning of white potato undergoing dehydration, will also be a subject of discussion. Methods of dehydration will be covered by a number of papers at the symposium, as well as product performance. Also to be discussed are such production problems as the dispersion of tomato juice powder in cold water and variables experienced in reconstituting several dehydrated fruits and vegetables.

The dehydration symposium will be coordinated with a "demonstration-of-progress" exhibit booth in which dehydrated products, including green beans, sweet corn, and orange juice will be described, reconstituted, and served.

HOTEL RESERVATIONS
Philadelphia

▸*37th Annual Meeting—October 26–29, 1954*

Please make your hotel reservations for the 37th Annual Meeting of The American Dietetic Association through: THE CONVENTION & VISITORS BUREAU, 17th & Sansom Sts., Philadelphia 3, Pennsylvania. The Bureau will accept either the form given below, or a letter containing equally specific information. You will receive confirmation of your reservation.

The Philadelphia Commercial Museum, where daytime meetings and exhibits will be held, is approximately two miles from the hotel area. The hotels listed below are located within a few blocks of The Benjamin Franklin Hotel, the headquarters hotel.

Order of Choice		Single	Double	Twin Beds
_____	Adelphia	$6.50–7.00	$10.50–12.00	$10.50–12.50
_____	John Bartram	6.00	9.00	12.00
_____	Benjamin Franklin	6.00–9.00	9.00–12.00	13.00–15.00
_____	Sylvania	7.50	—	10.50–12.50

☐ With single bed (very scarce; arrange for double occupancy, if possible)

☐ With double bed (for two persons)

☐ With twin beds

(PLEASE PRINT)

NAME.....

ADDRESS.....

CITY & STATE.....

ARRIVAL DATE.....**DEPARTURE DATE**.....

.....

(Name of person who will share your accommodations)

Meetings. The *Canadian Dietetic Association* will meet June 8 through 10 in Halifax, Nova Scotia.

July 4 to 8, 1955 are the dates set for the *Second Congress of the International Diabetes Federation*. Meetings will be held in Cambridge, England. Further information may be obtained from James G. L. Jackson, Acting Secretary General, The Diabetic Association, 152 Harley Street, London W. 1.

Chronic Illness. How to improve the lot of victims of long-term illness was the subject of a three-day study when the National Conference on Care of the Long-Term Patient met in Chicago, March 18 to 20. The conference was organized around five major subjects: the patient at home, the patient in an institution, integration of services and facilities, research, and financing. Sponsorship of the Conference was by the American Hospital, Medical, Public Health, and Public Welfare Associations and the U. S. Public Health Service.

Trichinosis Conference. On March 1, the Second National Conference on Trichinosis was held in Chicago. The morning session was opened with an overview of the problem in the United States, with presentations on the meat education program by R. C. Pollack, National Live Stock and Meat Board; a review of outbreaks and statistics by Dr. James H. Steele, U. S. Public Health Service, Atlanta; and a discussion of trichinosis as a public health measure by Dr. Herman N. Bundesen, President, Chicago Board of Health. This was followed by talks on sanitary garbage disposal; sanitary land-fills as one method of garbage and refuse disposal; refrigeration of pork; microscopic inspection of pork; and gamma irradiation of pork and its possible costs.

In the afternoon, the meeting was broken up into five discussion groups on: public health, animal health, education, legislation, and research and organization. Following the discussions the entire group reassembled to hear reports and discuss recommendations made by groups.

Cooking for One. The senior citizens of Ithaca, New York, who attend adult education classes have prepared a small booklet, "Cook Alone—and Like It," especially to help the older person. Two-line verses and bits of learned-by-experience advice in the first person add spice to this sixteen-page compilation of recipes. A meal pattern for one day introduces the recipes which include: salads; desserts, such as custard and cakes; casserole dishes; and the pièces de resistance are recipes "for the grandchildren" for "Santa Claus ginger snaps" and "Christmas butter cookies." Copies of this little booklet are available for 25 cents each by writing to Jeanette B. McCay, Route 1, Ithaca, New York.

Reducing Diets? PRUNES BELONG!

Prunes add the variety and taste appeal that make low-calorie diets more appetizing. And their natural fruit sugar supplies the extra energy which dieters need. Yet prunes no *not* add extra calories.

Equally important, nutritious California Prunes provide a rich supply of essential vitamins (A and B_2) and minerals (iron, copper, calcium, prosphorous)—so necessary in *any* diet.

350 calorie BREAKFAST

When you're on a low-calorie diet, you won't feel you're skimping if you start the day with a hearty, healthy breakfast like this.

4 California Prunes with juice
(cooked without sugar)
Baked egg 2 strips crisp bacon
Thin slice whole wheat toast
½ pat butter
Black coffee or tea

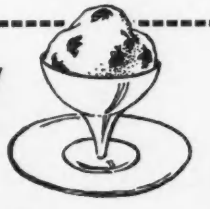
325 calorie LUNCH

Small glass tomato juice
Prune and peanut butter sandwich
on whole wheat bread
3-4 Celery sticks
Glass skim milk

PRUNE AND PEANUT BUTTER SPREAD

Combine ½ Tbsp. peanut butter, 2 chopped, pitted California Prunes, and ½ tsp. lemon juice. Mix to spreading consistency.

490 calorie DINNER



1 cup hot consommé
Medium-size serving pot roast
(no gravy)
Baked potato, ½ pat butter
Cole slaw with vinegar dressing
Prune Sherbet
Black coffee or tea

PRUNE SHERBET

Puree 8 pitted California Prunes, cooked without sugar. Dissolve 2 Tbsps. dry skim milk in ½ cup water; combine prunes, milk, and ¼ cup prune juice. Stir in 1 tsp. non-caloric liquid sweetener and 2 Tbsps. lemon juice. Freeze until mushy. Beat 2 egg whites until they form soft peaks. Blend into sherbet and re-freeze until firm. Makes 6 servings of approximately 45 calories each.

TABLE OF FRUIT EXCHANGES

(based on *Food Values of Portions Commonly Used*, Bowes and Church, 7th Ed., 1951)

4 medium-sized prunes, cooked without sugar, total about 86 calories — approximately the same calorie count as these other fruit servings:

1 med.-size raw apple ½ med.-size grapefruit
4-5 med.-size apricots 1 med.-size orange
1 small banana 1 cup sliced peaches
1 large slice canned pineapple

FOR FREE FORMULA BOOK of quantity recipes featuring California Prunes, send card to California Prune Marketing Program, 2 Pine Street, San Francisco, California.

include the California Wonder Fruit

PRUNES

✓ HIGH IN VITAMINS
✓ HIGH IN MINERALS
✓ HIGH IN ENERGY

Booklet on Health and Finance. *Money Management, Your Health Dollar* has been revised by the Consumer Education Department of Household Finance Corporation. The new edition includes a section on types of health and accident insurance available either individually or through a group plan. In addition, the booklet explains how to keep medical costs down by building good health at home, choosing a family physician, and what to expect when hospital care is needed. Health and medical costs at various ages are noted, and the services of public health departments as well as other health services are covered. A "Budget for Medical Expenses" is included as a help in advance planning of medical costs. Copies may be purchased for 10 cents each from the Consumer Education Department, Household Finance Corporation, 919 North Michigan Avenue, Chicago 11.

Fulbright Awards. Awards for visiting lecturers and advanced research workers under the Fulbright Act will again be available in 1955–56. For those schools whose terms open in our spring, the closing date for applications was April 15, 1954. These include: Australia, Burma, Ceylon, India, New Zealand, the Philippines, Thailand, and Union of South Africa. Of special interest to dietitians is the fact that a research fellowship in dietetics will be available at the School of Home Science, University of Otago, New Zealand. This fellowship will be offered in association with the New Zealand Dietetic Association.

Fulbright openings in institutions where terms begin in the fall will be announced in July. These countries include: Austria, Belgium and Luxembourg, Denmark, Egypt, Finland, France, Germany, Greece, Iraq, Italy, Japan, Netherlands, Norway, Pakistan, Sweden, and the United Kingdom and its colonial dependencies. Closing dates for these applications will be October 15.

Further information on opportunities for foreign lectureships or research under the Fulbright law is available from the Committee on International Exchange of Persons, 2101 Constitution Avenue, Washington 25, D. C.

United Nations Film. "World without End" is the title of a new documentary film telling the story of UNESCO and three other United Nations agencies. It is a unified film of the world's knowledge of medicine, agriculture, and education at work for the peoples of the world. Paul Rotha and Basil Wright, working at opposite ends of the world—Mexico and Thailand—directed the film. "World without End," to be distributed in 16-mm. and 35-mm. widths, was previewed on television on April 5. During April and May, local premieres are to be co-sponsored by interested audiovisual personnel, program directors of organizations, and heads of educational institutions. Prints of the film in 16 mm. size, running 45 min., are being made available for rental from numerous local educational and commercial film libraries or may be purchased outright for $145 each. A discussion guide prepared by the Foreign Policy Association will be supplied with each film. Prints are available for purchase from Brandon Films, Inc., 200 West 57th Street, New York 19, and Film Center, Inc., 64 West Randolph Street, Chicago 1. Local rental sources will be supplied on request.

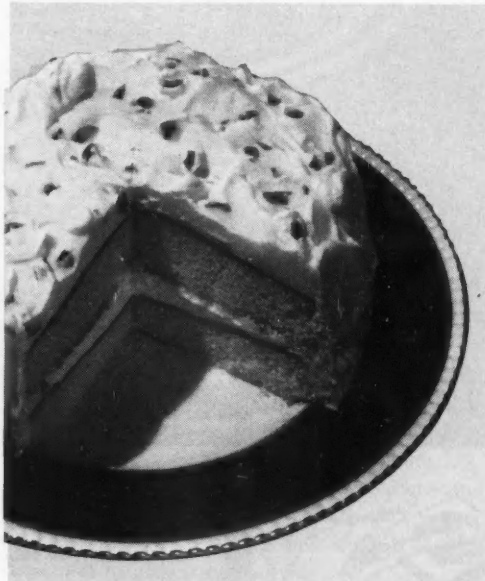
Reorganization in U.S.P.H.S. Announcement has been made of the reorganization of the Bureau of State Services, U. S. Public Health Service. This Bureau has been the principal operating arm of the Service for federal-state, interstate, and international health activities. The reorganization, effective on April 5, consolidates the sixteen present divisions of the Bureau into six. These new divisions are: General Health Services, Special Health Services, Sanitary Engineering Services, International Health, Dental Public Health, and the Communicable Disease Center, Atlanta.

Bill on Pesticide Residues. On March 8, an amendment to the Federal Food, Drug, and Cosmetic Act pertaining to the control of pesticide chemicals in foods was reported out of committee hearings for action by the House of Representatives. The amendment is proposed to give better protection of the public health and to simplify and speed up the administrative process in establishing tolerances for pesticide chemical residues on raw agricultural commodi-

Good News for Dieters...

Here's a non-caloric sweetener you can really cook with!

(*In any food, at any temperature*)



A Party Sponge Cake made with SUCARYL—just one of the low-calorie dishes from the new SUCARYL Recipe Booklet.*

SUCARYL'S new! It's not saccharin, nor is it related to any other synthetic sweetener, old or new. It's sugar-sweet and stays that way—in any cooking process. *And it won't turn bitter.* No calories at all in SUCARYL. It's wonderful for sugar-cautious dieters! Abbott

Sucaryl

(Cyclamate, Abbott)

THE NEW NON-FATTENING SWEETENER

* *Available at pharmacies; or write Abbott Laboratories, No. Chicago, Ill.*

400129

ALL IN A DAYS WORK ★ ★ ★ ★ ★ **by DAN D. DOWNYFLAKE**

M'm I see Sam's made Devil's Food Cake today.
Yes, he makes a different cake variety EVERY day.
NEXT DAY
I brought my friend in for Sam's delicious cake.
Today's variety is SPICE CAKE... It's heavenly!
Today I brought a friend for Sam's wonderful cakes.
You picked a good one ... it's yummy YELLOW CAKE today!
Sam's Downyflake cake varieties sure bring in the customers.
Yes, and Sam and I are both happy that he knows about Downyflake...Gives him so much time to do his other things too.

Delicious Varieties . . . So EASY to BAKE

with fully prepared **Downyflake**

CAKE MIXES ★ CAKE BASES

Do as Sam does!—*Push variety cakes!* It's so easy with Downyflake Fully Prepared Cake Mixes and Bases.

The dessert really "makes" the meal. Give customers a delicious variety of cakes and they'll be coming back for more. Downyflake saves your bakers a lot of time. Helps them produce more . . . in greater variety; to spend more time in finishing.

You'll find it pays in many ways to order a case each of Downyflake Mixes in White Cake, Yellow Cake, Devil's Food Cake, Spice Cake and Gingerbread. It's a wonderful sales-building idea.

Downyflake BAKING MIX DIVISION
Doughnut Corporation of America
393 Seventh Ave., New York 1, N. Y.

5 SUPERIOR QUALITY BAKING MIXES
- *White Cake*
- *Yellow Cake*
- *Devils Food Cake*
- *Spice Cake*
- *Gingerbread*

SEND FOR FREE SAMPLE!

DOWNYFLAKE BAKING MIX DIV.
Doughnut Corporation of America
393 Seventh Ave., New York 1, N. Y. JADA-5

Kindly send me a sample of_____Cake Mix
☐ "Variety Downyflake Cakes" Folder
☐ Wall Chart "Baking Helps by Downyflake"

Name_____
Firm Name_____
Address_____
City_____ Zone____ State____

ties. Under existing law, added poisonous and deleterious substances (and most pesticide chemicals fall in this class) must be kept out of foods unless they are required in production or cannot be avoided in good manufacturing practice. When the poison is required in production, as in growing agricultural crops, a tolerance may be established after a formal hearing. The Secretary of Health, Education, and Welfare now must determine whether the use of such pesticide is required and what residue levels may safely be tolerated.

The amendment as proposed will give to the Secretary of Agriculture the responsibility of determining whether a pesticide is "required in production and cannot be avoided by good manufacturing practice." After this determination, the Department of Health, Education, and Welfare would be responsible for establishing tolerances, or exemptions from tolerances, for useful pesticide chemicals. The bill contemplates that the tolerance shall be fixed at zero (and use of the chemical thus prohibited) where scientific data justifies no greater tolerance.

Quantity-Cooked Vegetables. Research to improve the flavor and vitamin content of vegetables cooked in quantity was recently conducted at Cornell Agricultural Experiment Station. The vegetables were cooked in several ways; tested for ascorbic acid, thiamine, and riboflavin; and judged for palatability. They included fresh broccoli, Brussels sprouts, cabbage, cauliflower, rutabagas, spinach, frozen broccoli, Lima beans, and peas.

Boiled vegetables, either in an institutional steam-jacketed kettle or a regular kettle on a range, rated good for taste and held over half their vitamin content. The steam-jacketed kettle proved especially good for green and leafy vegetables, since it permits rapid cooking. When cooked in a steamer without water, the vegetables were higher in vitamins but less palatable, with flavor decreasing in inverse ratio to steam pressure.

Nearly all vegetables lost both ascorbic acid and palatability if held warm after cooking for even 15 min. and deteriorated with additional holding, whether held in a warmer, a dry-heat counter, or a steam counter.

Buying Frozen and Canned Foods. Frozen food output has tripled in the last seven years, and sales promise to keep soaring, according to Dr. H. W. Bitting of the U.S.D.A.'s Agricultural Marketing Service. Dr. Bitting bases his outlook on a 1952 study of purchases by representative city families. Orange juice concentrate, peas, and strawberries were the most popular frozen items, judging from the survey; only these three of twelve major frozen foods checked in the study were bought by over half the families. Families with refrigeration facilities bought more frozen foods than those without. Purchases by those with freezers were not significantly larger than those having only a refrigerator. Surprisingly, the survey showed that only a small proportion of the 89 per cent of urban families who own refrigerators were buying frozen food. Dr. Bitting believes they will do so as they appreciate the convenience and quality of the products.

More families bought canned peas, whole kernel corn, and snap beans than bought those foods frozen, regardless of refrigerating equipment.

Family purchases of frozen foods were largest in the Northeast, with the West ranking second; the North Central, third; and the South, last.

Summertime Is Dairy Time. Much more dairy food is eaten in summer than in winter, according to a survey of representative families in Sacramento. Jessie V. Coles of the California Agricultural Experiment Station, who conducted the survey, reports that families used 16 per cent more of twenty-two dairy products in the summer. Exceptions were butter, condensed milk, and "half-and-half" which were used more in winter. Frozen desserts, mostly ice cream, made the biggest seasonal difference, with families consuming twice as much in summer. An increased use of whole milk in summer was the chief cause of the family average of 14 qt. fluid milk compared to less than 12 qt. in winter. Evaporated milk, cottage and Cheddar cheese, and cream were also used more in summer; other cheeses varied less with the season.

About three-fourths of the fluid milk

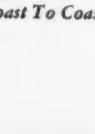
spotless tableware every time with DuBOIS products and engineered service

Glassware, silver and dishes dry immaculate with no bacteria-breeding film or water droplets when you use DuBois products. Regardless of your washing problems, whether done by hand or machine with hard or soft water, you are guaranteed a better job with these DuBois products:

K-O-L's—for most effective machine washing
D-LITE—for perfection in hand washing
S-U-D-S—a supersudser for pots and pans

Write us today for complete information on any DuBois product and DuBois Personally Engineered Service.

For perfect results in any dishwashing machine, contact DuBois today about the new Electronic Control. It maintains uniform solution strength, guarantees cleaner, brighter tableware.



The DuBOIS Co., Inc.
Cincinnati 3, Ohio Los Angeles 33, Calif.

Representatives and Warehouses from Coast To Coast

SUSTAGEN

a completely new approach to tube feeding

Now it is possible to give patients who cannot or should not take food by mouth the *full nutritional support* necessary to promote recovery and hasten convalescence.

WITHOUT COMPLICATING SIDE EFFECTS

The problem of diarrhea, cramps and nausea, so long associated with tube feeding, is practically eliminated by Sustagen.

WITHOUT DISCOMFORT TO THE PATIENT

Mead's Tube Feeding Set provides new and unequalled ease of administration. The smooth, slender plastic tubing, about half the size of the smallest rubber tube, is easily inserted and swallowed almost without sensation.

THERAPEUTIC NUTRITION IN THERAPEUTIC AMOUNTS

Sustagen more than meets all nutritional needs even in periods of physiologic stress such as those which accompany serious illness and injury. Sustagen meets or exceeds the therapeutic recommendations of the Committee on Therapeutic Nutrition, Food and Nutrition Board, National Research Council.

A 24 hour feeding of 900 Gm. supplies:

Calories	3500
Protein	210 Gm.
Fat	30 Gm.
Carbohydrate	600 Gm.

Vitamins and Minerals

Vitamin A	5000 units
Vitamin D	500 units
Ascorbic acid	300 mg.
Thiamine hydrochloride	10 mg.
Riboflavin	10 mg.
Niacinamide	100 mg.
Calcium pantothenate	40 mg.
Pyridoxine hydrochloride	5 mg.
Choline bitartrate	500 mg.
Folic acid	2.5 mg.
Vitamin B_{12} (crystalline)	4 mcg.
Iron	15 mg.
Calcium	6.3 Gm.
Phosphorus	4.5 Gm.
Sodium	1.9 Gm.
Potassium	7 Gm.

For detailed information, write for the booklet, "How to Use Sustagen."

IDEAL ALSO FOR ORAL USE

Makes a delicious and nutritious "food drink" for patients requiring a restricted or liquid diet. 3 oz. of Sustagen and 5 oz. of water makes a glassful supplying 330 calories and 20 Gm. protein.

SUSTAGEN

a complete nutriment for tube feeding

MEAD JOHNSON & COMPANY • EVANSVILLE, INDIANA, U.S.A. MEAD

was used as a beverage; chief use of "half-and-half" was at the table (cereals, fruits, tea, and coffee). Over one-third of the evaporated milk was used at the table with about the same amount for cooking, but more was used for baby feeding in summer than in winter. Salads were the big use for cottage cheese, and over half the Cheddar cheese went into sandwiches. About two-thirds of the butter was served at the table, but one-fourth was used in food preparation. Summer use of butter in sandwiches was nearly double that of winter.

Packaging Poultry for Freezing. Good packaging, according to the Minnesota Agricultural Experiment Station, is an important key to successful home-freezing of poultry. Tests were made at the Station with nearly four hundred chickens, turkeys, and geese. Moisture-vaporproof wrappings, applied by close sealing so that the least possible air is in contact with the poultry (to keep the meat from drying out or getting "freezer burn") gave best results. Several types of wrapping materials, including a number of plastic films, proved satisfactory. All were used in bag form, making it possible to obtain airtight twist seals. With many other moisture-vaporproof materials which come in sheet form only, it was difficult to get airtight seals, because of the irregular shape of poultry. Aluminum foil, which can be molded manually to the bird, was the exception. In using plastic bags, the Minnesota scientists advise care in pushing out as much air as possible before applying the twist seal. This can be done by submerging all but the open end of the filled bag in water. They also mention special equipment which may be used to give a partial vacuum.

Jane Strickland Foster. The A.D.A. office has been notified of the death on February 27 of Jane Strickland Foster of Biloxi, Mississippi. Mrs. Foster had been an A.D.A. member since 1942, and had been employed, prior to retiring to become a homemaker, at the John Gaston Hospital, Memphis, and the Southern Baptist Hospital, New Orleans.

Bedridden youngsters
can't keep up their studies

Help keep them healthy with

COLT AUTOSAN

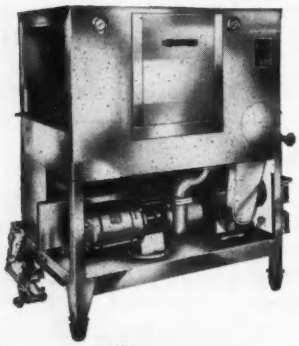
DISHWASHING EQUIPMENT

Many schools unknowingly contribute to absenteeism by sanctioning unsanitary dishwashing methods in their cafeterias. Yet health authorities say only *one* dish in ten washed by hand is "safe".

The modern, *sure* answer is Colt Autosan Dishwashing Equipment. Every step in the Colt dishwashing process contributes to cleaner, "safer" dishes—from contamination-free automatic pre-flush, through exclusive "cloud-burst action" wash, to 180-degree sanitizing rinse.

Durable Colt-engineered Autosans are economical to operate. Many have been in daily use for over 25 years!

Ask your equipment dealer about Colt Autosan, or write us for complete information. Colt's Manufacturing Company, Dept. JA-5, Hartford 15, Connecticut.



SCHOOL FAVORITE

Colt Autosan Model RC-3
(2400 dishes per hour)

New design based on research in scores of kitchens. New wash chamber door gives easy access to interior, simplifies tube and scrap tray removal and cleaning. New wash spray distribution system concentrates spray, increases washing efficiency, improves splash control. Requires space only 27" wide by 42" long, table to table. Available with pre-flush.

See our insert (Eb/2)
in American School & University

COLT AUTOSAN

DISHWASHING, SANITIZING, DRYING MACHINES
AND VEGETABLE PEELERS

MADE BY THE MAKERS OF
FAMOUS COLT HANDGUNS, INDUSTRIAL PACKAGING EQUIPMENT, AND MOLDED PLASTIC AND FIBERGLAS PRODUCTS

News of State Associations

California Dietetic Association. The spring convention of the California Dietetic Association was held in Los Angeles, April 25 and 26. The program included sessions on the following topics:

"Needs and Techniques to Meet Community Problems"
"Techniques for Meeting Professional Education, Vocational Guidance, and Publicity Problems"
"Problems Created by Administration of the Low-Sodium Diet"
"Sanitation Problems"

At each session a guest speaker plus a panel discussion was presented in an effort to obtain wide discussion.

The *Bay Area Section* of the California Association met in San Francisco in February, joined by occupational and physical therapists. The program consisted of a skit put on by the members of each group to show high school and junior college students the work done by members of each of the three professions. The Vocational Guidance Committee has also aided with television shows, writing and distribution of brochures, and speaking engagements pertaining to the three professions as well as dietetics alone. . .In March, the *Bay Area* group met at the Donner Laboratory on the University of California Campus. Dr. Robert Lowrey Dobbson, University of California, spoke on "Radioactive Isotopes in Biological Medicine." . . . From March 18 to 25, the Professional Education and Food Administration Committees sponsored a workshop on "Supervision of Dietary Personnel" and "Human Relations" at Stanford University, Palo Alto.

The March meeting of the *Los Angeles Section* featured Walter Shaw, Apprenticeship Coordinator for the Service Trades, Los Angeles Public Schools, who talked on "Employee Training."

Members of the *Santa Barbara-Ventura Section* in March enjoyed a conducted tour of the Weber Baking Company by J. F. LaBarge, Manager.

Colorado Dietetic Association. The chief dietitians and their first administrative assistants in *Denver* have organized monthly meetings for mutual assistance and understanding of their

SERVE HUMANITY ✯ SERVE YOUR COUNTRY ✯ SERVE YOURSELF

Your Career... more Complete as an Army Dietitian!

Here are three views of one of the finer careers in Medical Service... three bright reflections of *you* as an *Army Dietitian.*

First, you serve humanity, in the highest tradition of your calling. You work in modern Army hospitals all over the world, using the best equipment to make your skills effective. You work, learn and achieve with a top medical team made up of progressive men and women like yourself.

Second, you use your skills not only for humanity in general, but for your *country* in particular, serving with prestige and honor as a commissioned officer in the U. S. Army.

Third, you have unusual opportunities for personal as well as professional development. In addition to broadening the scope of your professional skill, your Army career affords you opportunities to widen your social horizons.

Seek the most from your career in Dietetics. Serve three ways and gain three times the satisfaction from your service. Your life can be fuller, your work more versatile, your career more rewarding, as an Army Dietitian.

WOMEN'S MEDICAL SPECIALIST CORPS

U. S. ARMY MEDICAL SERVICE

FILL OUT THIS COUPON TODAY

The Surgeon General—United States Army D-544
Washington 25, D. C.
Attention: Personnel Division

Please send me further information on my opportunities as a Dietitian in the United States Army.

Check if interested in training opportunities ☐

NAME.....

ADDRESS.....

CITY.....STATE.....

problems. At the first meeting of the group, Helen Mosbeck and Hannah Hotvett reported on the recent A.H.A. Dietetic Institute in Houston.

Hawaii Dietetic Association. The *Hawaii Diet Manual*, revised by the Diet Therapy Committee, became available in August, 1953. The revision includes the Exchange Lists for Diabetic Diets; new, low-calorie diets using the Exchange Lists; and the newer trends in modification of diets. Island foods are included in the diets and suggested menus. This manual is the standard for all hospitals in the Territory and in the teaching of student nurses.

Early in February, the junior and senior dietetic majors of the University of Hawaii were guests of the Hawaii Dietetic Association at a meeting held at The Queen's Hospital. A panel discussion of experiences during internships in different mainland hospitals was presented by dietitians from three hospitals and from the University cafeteria and the University graduate school.

At a second February meeting, the members heard a discussion by a representative from the Industrial Research Agricultural Council on the experimental work being done on guava and lilikoi (passion fruit). On March 25 the members toured this research unit, saw the equipment, and sampled delicious guava and lilikoi nectar and lilikoi sherbet.

SAVORY SPEEDS SERVICE BECAUSE IT'S SELF-UNLOADING!

You could serve a mile-high stack of toast made the Savory way, yet never cause a toast bottleneck! The toaster is always ready for loading because its continuously moving conveyor unloads automatically, thus speeding up service of crisp, delicious toast – without fuss or bother.

Lowest Operating Cost

A Savory has the lowest operating cost in the commercial toasting field. Gas models operate on any type of gas, for as little as ¾ of a cent per hour. All-electric units have low connected load and comparably low operating costs.

"Ask your gas company for Proof of Profits through the use of modern equipment."

Savory EQUIPMENT, INCORPORATED
128 Pacific Street, Newark 5, N. J.
Sold by Leading Dealers Everywhere

Illinois Dietetic Association. A total of 457 members and associates attended the Illinois Dietetic Association's annual meeting on March 11 and 12 in Chicago. Co-Chairmen of the convention were Leila Colwell, Evanston Hospital, and Jean Riggs, Highland Park High School.

On February 17, the *Mississippi Valley Dietetic Association* met at Marycrest College, Davenport. Outstanding speaker on the program was Dr. Ercel Eppright, Head, Department of Foods and Nutrition, Iowa State College, Ames. Approximately three hundred community leaders and members attended the convention. President of the Mississippi Valley Association is Luana Friesth of Coal Valley, Illinois.

Kansas Dietetic Association. In March, Topeka was hostess to Kansas Dietetic Association members who held their spring meeting in conjunction with the Kansas Home Economics Association. Talks on the program included:

"The Preservation of Idiosyncrasies" —Dr. A. H. Brayfield, Kansas State College, Manhattan

"Come Hear Yourselves as Others Hear You"—Virginia Toews, Bethel College, Newton

"The Dietary Problems of the Eleemosynary Institutions"—Dr. George W. Jackson, Kansas Board of Social Welfare, Topeka

"The Third Dimension"—Dr. Ruth Leverton, University of Nebraska, Lincoln

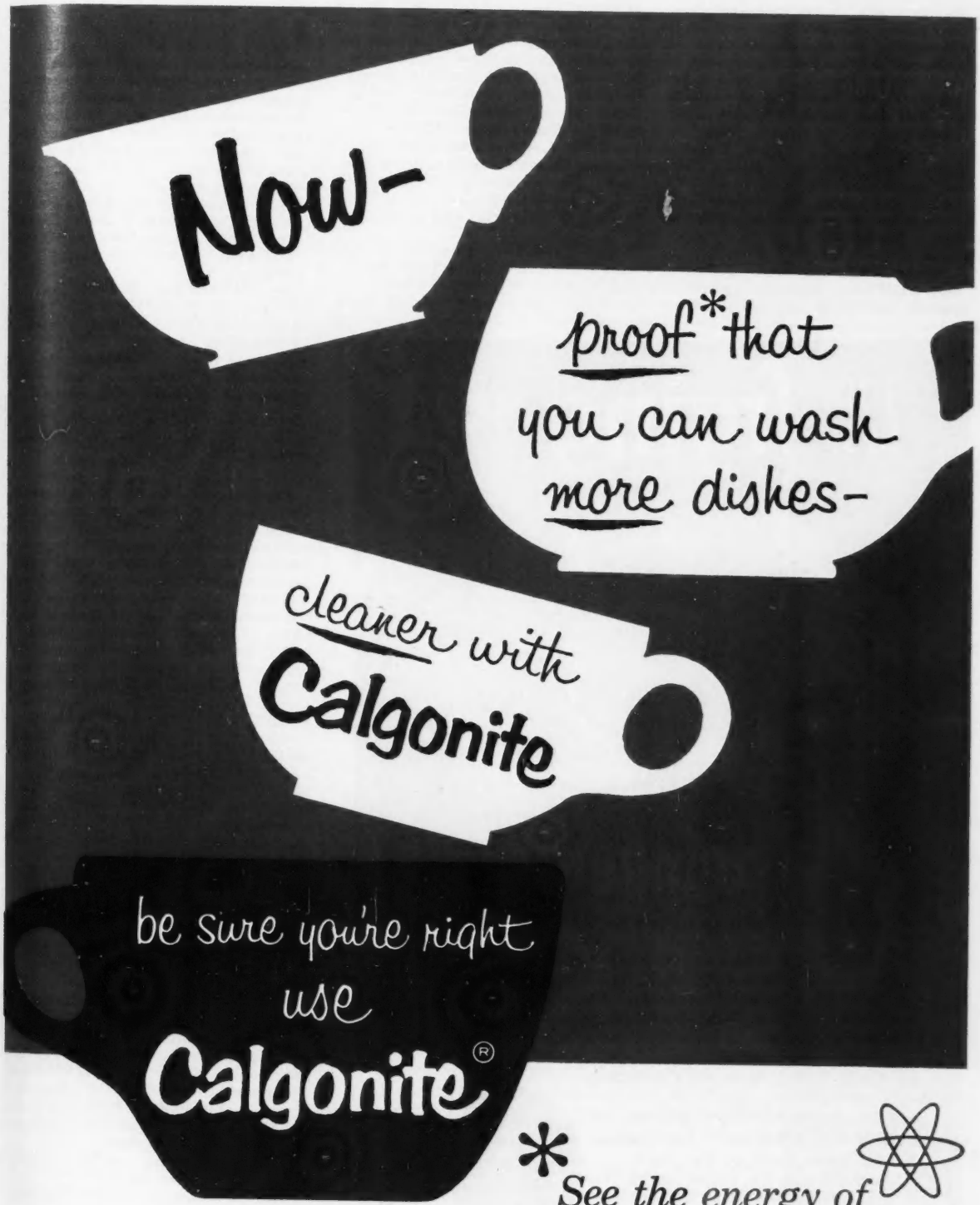
"The Future of the Kansas Dietetic Internship"—Arlene Payne, University of Kansas Medical Center, Kansas City

"Supervision in Our Food Service Units"—Patricia Beezley, Pennant Cafeteria, Topeka

Massachusetts Dietetic Association. Dr. Harry Schwachman, Children's Medical Center, Boston, spoke on "Nutritional Disorders in Children" at the February meeting of the Massachusetts Association. His discussion, which coincided with his appearance in the Medicine section of *Time* Magazine, included description of his work with pancreatic fibrosis (mucoviscidosis), formerly confused with celiac disease.

The Massachusetts Dietetic Association met with the New England Hospital Association in March to discuss "Work Simplification in the Dietary Department." Harold Dunlap, H. P. Hood and Company, was the principal speaker. The subject was considered from the viewpoint of food production and service, patient relations, and hospital administration.

Minnesota Dietetic Association. At a recent meeting, *Twin City* dietitians were entertained at the Radisson Hotel, Minneapolis, when Harry P. Calevas, Resident Manager, spoke to them on "Women and Formula Cooking." He spoke highly of the dietitians employed at the Radisson . . . In December, the dietetic interns from the University of Minnesota Hospital entertained the members of the Twin City Association



See the energy of the atom used to prove the superior washing power of CALGONITE. *You operate the Geiger Counter.* BOOTH 228-229, NATIONAL RESTAURANT SHOW.

by presenting a skit on the life of the dietetic intern . . . The January meeting was held at the new VA Hospital in Minneapolis. The discussion was on "Vitamin Deficiency in the Presence of an Adequate Dietary" . . . Officers for 1953–54 of the Twin City Association are: President, Audrey Shirley Coulter, University of Minnesota Hospital, Minneapolis; President-Elect, Florence Wilcox Scott, Community Health Service, Minneapolis; Treasurer, Jeanette C. Kirby, Glen Lake Sanatorium, Oak Terrace; and Secretary, Gaynold Carroll Jensen, Minneapolis.

Missouri Dietetic Association. On April 2 and 3, the Missouri Dietetic Association met in Columbia at the University of Missouri. The program included a paper on "Progress in Nutrition" by A. G. Hogan, Professor of Animal Nutrition, University of Missouri; a panel on controlling food and labor cost; a presentation on "Trends in Food Technology" by Belle Lowe, Iowa State College, Ames; and a discussion of civil defense by Mary Ward, Barnes Hospital, St. Louis. The American Institute of Baking film on "Sandwich Making" was also shown. Fern Gleiser, A.D.A. President-Elect, represented the national Association and discussed Association affairs.

Ohio Dietetic Association. On April 8 and 9, the Ohio Dietetic Association held its 33rd annual meeting in Columbus. The program featured panel discussions which brought together varying viewpoints.

"Building Esprit de Corps"—Frank K. Leppert, Battelle Memorial Institute, Columbus, with panel discussion following, by representatives of hospital and commercial food service, school lunch, and public health nutrition

"Therapeutics—Practical or Theoretical"—Martha Nelson Lewis, moderator, with a dietitian, physician, and nutritionist as panelists

"Application of New Methods in Packaging"—John Cowan, National Flexible Packing Association, and Dan Ridenour, Anchor-Hocking Glass Company

"The Lesser Known B Vitamins in Present-Day Health"—Dr. L. J. Filer, Medical Director, M & R Dietetic Laboratories

"The Food Situation and Outlook for 1954"—Riley Dougan, Extension Economist, Ohio State University

Fern Gleiser, A.D.A. President-Elect, attended this meeting as the national representative.

Pennsylvania Dietetic Association. The twenty-first annual meeting of the Pennsylvania Dietetic Association was held in Philadelphia, April 28 through 30. Small group discussions, under the general theme of "What Are We Working Toward?" centered respectively on "Producing Good Food," "Helping Patients to Accept Therapeutic Diets," and "Motivating People to Improve Eating Habits." In another panel, Katherine F. A. Lewis, Ph.D., Research Associate, Institute for Cancer Research, Philadelphia, spoke on "Nutritional Pathways of Microorganisms"; Grace Medes, Ph.D., Senior Member, Institute for Cancer Research, discussed "Fats and Their Interrelations with Carbohydrate"; and Jacob Stekol, Sc.D., Senior Member, Institute for Cancer Research, chose as his topic "The Interrelations of Amino Acids in Nutrition."

"Our Professional Code of Ethics" was discussed by Lucille M. Refshague, Director of Dietetics, Hartford (Connecticut) Hospital. Esther A. Atkinson A.D.A. Secretary, was official representative at the meeting.

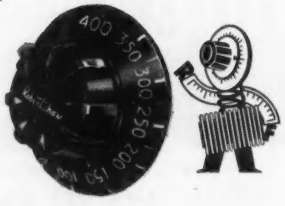
South Carolina Dietetic Association. Members of the South Carolina Dietetic Association held their spring meeting in Charleston on April 5, in conjunction with a nutrition institute for medical students. Drs. John B. Youmans and William McGanity, Vanderbilt University, Nashville, Tennessee, were featured speakers.

During the year, various section projects have been carried on by the South Carolina Association. The Diet Therapy Section is conducting a survey on selective menus for patients on modified diets. In public relations, talks have been given at three high schools in Columbia as well as a radio interview on "Dietetics—A Career"; and Julia Brunson, Vocational Guidance Chairman, has written a resumé of the role of a dietitian to be published in a state bulletin listing various types of careers.

LOOK FOR... *and get*... two kinds of results from your modern deep fat fryer. When you fry at correct temperatures, the first result is a saving of fuel, cooking oil and food spoilage The second result is customer satisfaction: you're sure to serve 'em fried foods that are tops in quality, taste and eye-appeal.

For correct temperature use *Robertshaw*® Controls.

Ask your Kitchen Appliance Salesman how the proper use of your *Robertshaw* Heat Controls will save fuel, foods and labor... and also make satisfied customers.



Ask your kitchen appliance salesman

Robertshaw-Fulton CONTROLS COMPANY

ROBERTSHAW THERMOSTAT DIV.
YOUNGWOOD, PENNSYLVANIA

November 12 and 13 will be the dates for the annual fall meeting of the South Carolina Association, to be held jointly with the home economics association.

Texas Dietetic Association. The *South Texas Dietetic Association's* January meeting, titled "School Lunchroom Presents," included a panel discussion of lunchroom organization and policy. In February, the group met at Rice Institute with the theme, "Homes Are Institutions, Too." The March meeting was on the subject of "Catering and Commercial Dietitians." Interns from the VA Hospital presided at the April meeting.

Washington State Dietetic Association. The spring convention of the Washington State Dietetic Association was held April 9 and 10 in Pullman. The program included:

"Planning for Effective Administration"—Margaret Terrell, University of Washington, Seattle

"Nutrition in the Acute and Chronically Ill Child"—Dr. Frederick R. Fisher, Spokane

"Techniques in Presenting TV Programs"—R. C. Norris, State College of Washington, Pullman

West Virginia Dietetic Association. Beginning with the school year 1954–55, the West Virginia Dietetic Association will make three "Cash Rewards" of $25 to the most outstanding senior students in home economics in the state. To be eligible, the students must plan to take a dietetic internship on graduation.

Wisconsin Dietetic Association. An Institute of Foods and Nutrition was held at the School of Home Economics, University of Wisconsin, Madison, in March. The program, with Madison dietitians as hostesses, included the following speeches:

"Today's Trends in Food Research"—Dr. Gladys Vail, Purdue University, Lafayette, Indiana

"Putting Nutrition Research to Work"—Dr. Conrad Elvehjem, University of Wisconsin

Symposium on quality of foods from the standpoint of:

"Preparation Techniques"—Dr. Beatrice Donaldson

"Nutritive Value"—Dr. Iva Mortimer

"Chemical Additives"—Dr. Flora Hanning

"Sanitation"—Dr. Dorothy Husseman, University of Wisconsin

"Can Science Find the Answer to World Hunger"—Prof. Noble Clark, Wisconsin Agricultural Experiment Station

"Newer Findings in the Vitamin Field"—Dr. Carl Baumann, University of Wisconsin

"Nutrition in Pregnancy and Prepregnancy"—Dr. Genevieve Stearns, University of Iowa, Iowa City

"The Use and Abuse of Some Therapeutic Diets"—Dr. Helen Parsons, University of Wisconsin

"What's Back of Food Prices?"—Dr. May Cowles, University of Wisconsin

"Food for Fun"—Lenore Sullivan, Iowa State College, Ames

"Effective Methods of Presenting Foods and Nutrition Information"

..."Through Television"—Breta Griem, Station WTMJ-TV, Milwaukee

..."Through the Schools"—Dr. Julia Dalrymple, University of Wisconsin

..."Through Posters and Exhibits"—Ruth Davis, University of Wisconsin

At the Wisconsin Dietetic Association conference, held jointly with this meeting, Richard E. Sullivan, University of Wisconsin, spoke on "Employee Relations."

The Institute also offered an exhibit of source materials and teaching aids in foods and nutrition, as well as an invitation to visit the new facilities in the University's Home Economics Building.

Association Activities

State Meetings. The following national representatives are attending state dietetic association meetings:

April 2–3—Geraldine Piper, Oklahoma Dietetic Association, Oklahoma City

April 23–24—Anna dePlanter Bowes, Virginia Dietetic Association, Old Point Comfort

May 3—Dr. Doris Johnson, Rhode Island Dietetic Association, Kingston

Serve coffee by the pot

FOR BIGGER PROFITS

All stainless steel vacuum pots
Keep contents piping hot for hours
One-piece seamless drawn liners
Silver soldered joints No replating

3012-1V Wide necked—easy to clean. Stainless steel seamless drawn liner and outside shell. Gadroon border,* in 10 and 20 oz. sizes.

3012-VA Double wall construction, all stainless steel inside and out. Easy to clean, corrosion-proof. No replating. Individual 10 oz. size.

Sturdy insulated handles — seamless drawn bodies —heavy gauge stainless steel throughout — sanitary perfect pour spouts — double thick extra strong hinges—welded spouts and bases—lustrous platinum finish with attractive border decorations* to supplement the finest china, glass and silver service.

No breakage • Easy-to-clean
Non-porous • Chip proof • No replating
No polishing expense
A lifetime investment

Write for catalogues: LEGION UTENSILS CO.
2109 40th Ave., Long Island City 1, N. Y.

Branch offices:
21 East Van Buren Street, Chicago 5, Illinois
420 Market Street, San Francisco 11, California

*SCAVULLO PAT

LEGION UTENSILS CO.

PIONEERS IN STAINLESS STEEL

Plant Protein Effective for Maintaining Blood Sugar Level After Breakfast

It has been demonstrated that the amount of protein in the breakfast is important in the maintenance of the blood sugar above the fasting level in the late morning hours. The question remains as to how much protein is necessary and as to the importance of the source of the protein. So as to gain further information about these questions carefully controlled experiments were carried out at a distinguished mid-west medical college.

The experiments (1), (2), (3) involved 18 young men, 8 old men, and 5 young women, and the observations were made jointly by the Departments of Physiology and Nutrition. Controlled breakfasts were provided to furnish data for demonstrating the following:

(a) The comparative effects of protein from animal and plant sources on the blood sugar levels following breakfast.

(b) The influence of the amount of the protein in the breakfast on the blood sugar level in the late morning hours.

FROM THESE EXPERIMENTS SEVERAL PRACTICAL AND SOUND CONCLUSIONS CAN BE DRAWN:

1. The effects of the protein in the breakfast on the blood sugar level following the meal were the same regardless of whether it was of plant or animal origin.

2. A combination of animal and plant protein in the breakfast is as effective for maintaining the blood sugar above the fasting level in the late morning hours as protein either of plant or animal source alone.

3. Although 15 grams of protein in the breakfast failed to maintain the blood sugar at or above the fasting level in the late morning hours, the fall below the fasting level was not statistically significant at 3½ hours. The data suggested that 15 grams of protein in the breakfast is the borderline amount with respect to maintaining the blood sugar above the fasting level for 3½ hours after the meal.

Whether protein in breakfast is of plant or animal origin, or a combination of both is of no consequence, since the blood sugar behaves very similarly following breakfasts containing the same amounts of the two kinds of protein, or a combination of the two.

THE BASIC CEREAL BREAKFAST . . . a Nutritionally Complete Breakfast

The basic cereal breakfast, consisting of fruit, cereal, milk, bread and butter, is a nutritionally complete breakfast, well balanced in essential nutrients. When providing one-fourth of the day's caloric and protein needs, it promotes the maintenance of good vigor, alertness, and well-being, and supports adequate blood sugar levels during the morning hours. It contributes 21 grams of protein derived from both plant and animal sources. As a part of the adequate diet adjusted to normal caloric needs, it in no way is conducive to excessive weight gain.

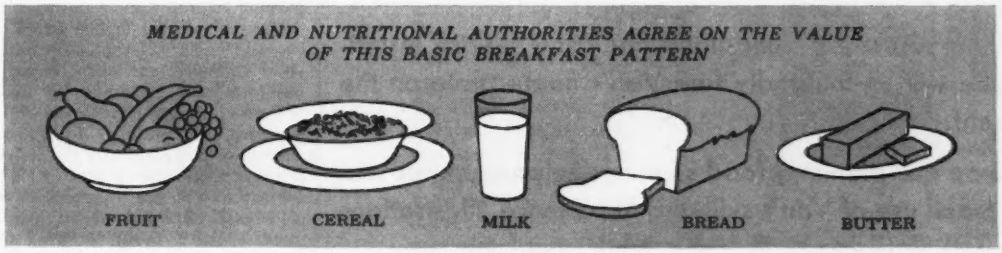
Due to its valuable contribution of biologically complete protein, B complex vitamins, and important minerals, the cereal and milk serving is an attractive nutritional centerpiece of the basic cereal breakfast. The relatively low cost and convenience of the cereal serving and the basic cereal breakfast makes this meal extremely economical.

REFERENCES

(1) Addison, Vesta E., Tuttle, W. W., Daum, Kate, and Larsen, Rosemary: *Effect of Amount and Type of Protein in Breakfasts on Blood Sugar Levels.* J. Am. Dietet. A. 29:7, 1953.

(2) Coleman, Mary C., Tuttle, W. W., and Daum, Kate: *Effect of Protein Source on Maintaining Blood Sugar Levels after Breakfast.* J. Am. Dietet. A. 29:3, 1953.

(3) Bryant, Kathleen, Martin, Constance, Schumacher, Mary T., Daum, Kate, and Tuttle, W. W.: *Effect of Aging and Various Types of Breakfasts on the Blood Sugar Level.* J. Am. Dietet. A. 28:1, 1952.



CEREAL INSTITUTE, Inc., 135 South LaSalle Street, Chicago 3, Illinois

A Research and Educational Endeavor Devoted to the Betterment of National Nutrition

May 4—Doris Odle, North Dakota Dietetic Association, Grand Forks
May 24-25—Geraldine Piper, Arkansas Dietetic Association, Little Rock

A.D.A. Exhibits. The *Chicago Dental Association* held its 1954 midwinter meeting February 7 to 10. The food models exhibit was used with a new theme designed to stimulate the interest of the dental profession.

The *Chicago Medical Society,* which held its Clinical Conference March 2 to 5, invited this Association to present the exhibit featuring the high-protein diet which was shown at the American Medical Association meeting in St. Louis.

Margaret Mott was exhibit chairman for the above meetings, assisted by other members of the Chicago Dietetic Association.

The *American Academy of General Practice* also requested that the high-protein exhibit be shown at its meeting held in Cleveland, March 22 to 25. Lillian Wichich acted as exhibit chairman with the assistance of the Cleveland Dietetic Association.

Section Reports. The A.D.A. Section Chairmen presented progress reports on projects at the mid-year Coordinating Cabinet meeting, February 12. These reports appear in the March 1954 *Courier*. If extra copies of any of these reports are desired by members, they may be requested from Clara Zempel at the Headquarters office.

Publications and Reprints List. The Publications and Reprints List of the A.D.A. is now being revised as of May 1, 1954. Single copies may be requested from Headquarters office.

News of Products and Services

"Nestea" is the new product of *The Nestlé Company, Inc.* for preparing ice tea in bulk. No brewing is necessary with the tea, a blend of orange pekoe and pekoe teas with added carbohydrates. Nestea is packaged in 1½-oz. bags which make 2 gal. bulk tea when cold water is added. The company will loan a 2-gal. heat-resistant glass dispenser to any operator serving iced Nestea during the coming season.

Hotpoint Company's Rocket 10 griddle, "big brother" to the HG4 Duo-Grid counter griddle, is made to turn out a dozen 4½-in., ⅕-lb. hamburgers a minute on its cooking surface. The griddle heats to 400°F. in 17 min. and is claimed to endure under heavy loads on continuous 24-hr. operation. Twin thermostatic controls permit independent operation of either side, or operation of both sides at different temperatures. A lift-out grease receptacle is located in front of the griddle. The Rocket 10, which occupies 22 by 37 in. space, may be mounted on a stand to provide a 35-in. height for kitchen work. It is also usable at the counter.

Another *Hotpoint* "new" is an electric broiler with a production capacity of 300 steaks hourly. The stepped-up power of the four-section broiling units, according to the company, has led to a preheating speed increase of more than 35 per cent, i.e., broiling temperature from a cold start is achieved in 10½ min. The broiler, either in silver-gray Permalucent or stainless steel, is available in five standard combinations; single or double broiler with oven or cabinet base, and single broiler without base.

The *National Apple Institute* has prepared a 16 mm., sound and color motion picture on dental health titled "Gateway to Health." Designed for the school-child audience, the script is written in the form of a discussion by a dentist. Stress is laid not only on the prevalence of caries, with pictures of both poor and good mouth health, but the importance of texture and the order in which foods are eaten. The use of apples at the end of a meal, as a method of cleaning the mouth with a rough-textured food, is featured. The film runs 20 min.

So You're on a Diet! is the title of *American Can Company's* new, forty-one-page booklet discussing modified diets. Menus and recipes feature dietetic canned foods. Requirements for daily good eating are given, as well as plans for diabetic meals and diets using the A.D.A.-American Diabetes Association-Public Health Service Exchange Lists. The exchanges are also listed.

ARCHITECTS: COOLIDGE, SHEPLEY, BULLFINCH AND ABBOTT

use Van's long experience on hospital food service

● The picture above of the main kitchen of the new sixteen-story Hartford Hospital well illustrates the work Van has done equipping hospitals large and small for food service for more than a century.

● When you see an unusually fine food service installation, you will undoubtedly find Van's name plate on the equipment.

● If you are planning food service equipment improvements, make use of Van's skill and experience. Illustrations of such installations are in Van's Book, available now.

The John Van Range Co.

EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD

Branches in Principal Cities

341 EGGLESTON AVENUE CINCINNATI 2, OHIO

Similar plans for diets and meals are given for low-sodium diets, and foods high in sodium are listed. Low-calorie diets and meal plans are presented in the same way. Available carbohydrates, calories, and sodium are tabulated for various foods canned without added salt or sugar, and a shoppers guide for dietetic canned foods is given. The booklet is documented by eight references and indexed.

American Can Company has created a new fiber milk container department to keep pace with the dairy industry's growing needs, brought about by expanding markets for this type of container. The department will have the responsibility of directing sales, manufacturing, and sales promotion, and will be directly responsible to the company's executive department. Increased production facilities have been projected at key locations across the countryside this year.

Denver will be the site of a new *American Can Company* plant for the manufacture of food and beer cans. According to the company, the plant will have the capacity to produce millions of cans annually to serve the expanding needs of fruit and vegetable canners and brewers in the Rocky Mountain states. For many years, the plant at Ogden, Utah, has been the only manufacturer of food cans in the inter-mountain area.

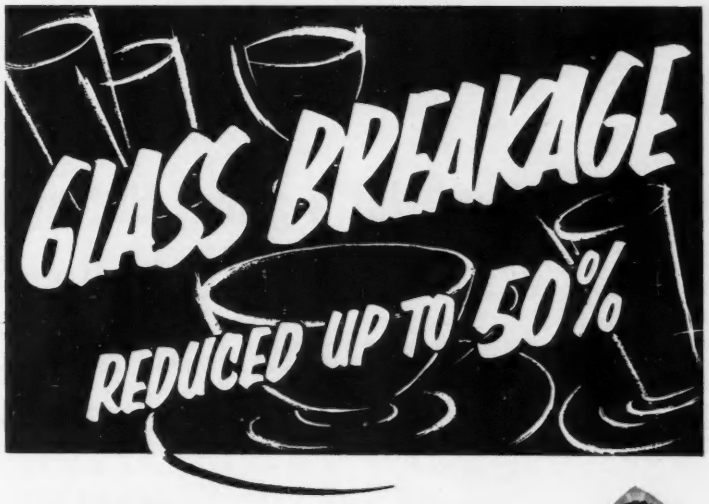
G. S. Blakeslee & Co. will introduce at the National Restaurant Show its new, 26-min., 16-mm. color film, "Now I'm in Business." A carefully written script, with touches of humor, tells the story of a man who found the answer to profitable food service operation by modernization and mechanization. Equipment and layout, work flow, and "factory production" methods, as adapted to quantity food production, are the theme of the presentation. The picture is essentially an informative and educational production, with the commercial sales story "soft-pedaled" to a commendable degree. A number of different types of equipment are featured, and their use in actual operation is demonstrated. The film is available on loan without charge, and prints will be sold at cost.

Mead Johnson and Company is now marketing Lactum, its liquid infant formula product in powdered form. According to the company's announcement, Powered Lactum provides the same nutritional advantages as Liquid Lactum; namely: extra protein to assure optimal growth and development, all the natural nutrients of whole milk including natural milk fat, and carbohydrate in the form of the company's Dextri-Maltose. This complete formula product is homogenized, pasteurized, and spray-dried to produce an easily reliquefied product. The new product will be supplied in 1-lb. cans with a measure included in each package. Liquid Lactum will also continue to be available.

International Molded Plastics, Inc., has introduced for the first time to the institutional market a patterned plastic dinnerware, to be called "Brookpark." Made of Melmac, the designs are molded in by a process developed specifically for thermosetting plastics. Color is protected by a layer of molding material over the pigment which prevents discoloring, peeling, and chipping. The new ware, although translucent like china, is safe in dishwashers, impervious to detergents, and break-resistant. "Fantasy," "Pink Champagne," and "Tulip" are the names of the patterns; bone-white is used as the ground color.

The Maxwell House Division of *General Foods Corporation* has launched a soluble coffee packed exclusively for quantity brewing. Two pre-measured quantity packs, one for urns and one for glassmaker, are available. Both are scaled on a pound-equivalent basis. The packs are made of aluminum foil, lined with polyethylene, and usable with ordinary equipment. This Instant Maxwell House Coffee can be brewed any place that has hot water, and no special training is needed to make it. The company states that a 10 per cent greater yield results because of no shrinkage or loss of water in the grounds; that labor costs are reduced up to 75 per cent; and that brewing time for a 2½-gal. urn of the coffee is under 3 min. as compared to 12 min. for regular ground. No urn bags or filter cloths are needed; for glassmaker brewing, only the lower bowl is necessary.

A *General Foods* "first" happened on television on March 28, when the Rodgers and Hammerstein Cavalcade was presented to mark the company's



Sani-Stack® method cuts breakage with manual dish handling reduced up to 71%

Leading establishments have actually reduced glass breakage by as much as 50% with modern Sani-Stack racks. Sani-Stack racks methodize the dish handling procedure, minimize the human element. Not only that, they save valuable space and cut manual dish handling up to 71%. They are available for dishes, glasses, cups, trays, silverware, etc. in tinned wire and stainless steel. Also with the amazing new *plastisol* linings. To find out how they can simplify your dish washing problems while saving storage handling and breakage write today for our free folder. No obligation, of course!

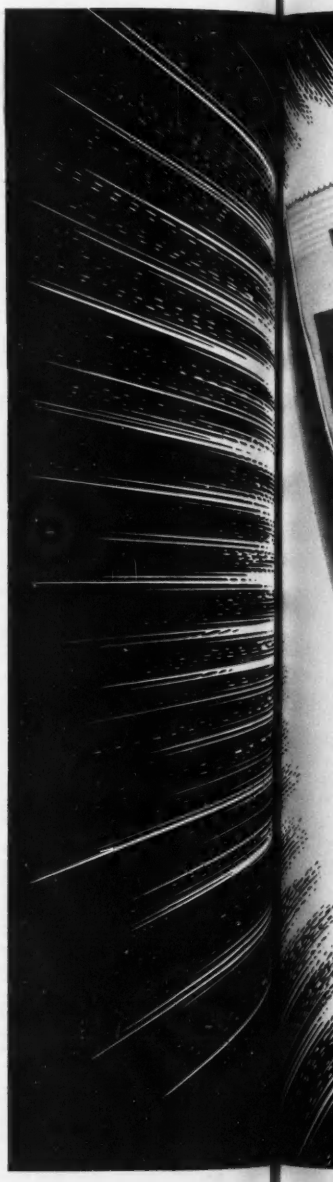
For more than 20 years sold through better restaurant equipment dealers everywhere

Metropolitan WIRE GOODS CORPORATION
70 Washington Street, Brooklyn 1, N. Y.

AMAZING COFF

Now Packed for Quantity Brewing!

Not a powder! Not a grind! But millions of tiny "FLAVOR BUDS" of real coffee... ready to burst instantly into that famous GOOD-TO-THE-LAST-DROP flavor!



Only this entirely new *kind* of coffee gives you all these advantages:

- 10% greater yield per pound-equivalent pack!
- Cuts brewing time and labor costs 75%!
- Any worker, trained or not, can brew it perfectly!
- Uniform cup quality—ends "in-and-out" batches!
- No more "staling" problems—saves storage space!
- No more coffee grounds—makes cleaning a cinch!
- No more urn bags, upper bowls, rings or filters!
- Can be brewed in small batches anywhere, anytime!

For free brewing demonstration, see your Maxwell House Man today!
Or write: Maxwell House Division, H&R Dept., Hoboken, N. J.

INSTANT MAXWELL

HOTEL and R

FEE DISCOVERY

URN SIZE
HOTEL & RESTAURANT PACK
GENERAL FOODS CORP., ADDRESS: NEW YORK 17, N. Y.
Instant MAXWELL HOUSE COFFEE
100% PURE COFFEE
GLASS-MAKER SIZE
HOTEL & RESTAURANT PACK
GENERAL FOODS CORP., ADDRESS: NEW YORK 17, N. Y.
Instant MAXWELL HOUSE COFFEE
100% PURE COFFEE
HOTEL & RESTAURANT PACK
GENERAL FOODS CORP., ADDRESS: NEW YORK 17, N. Y.

A Product of General Foods

L HOUSE COFFEE

d RESTAURANT PACK

NEW
flavor lift for
LOW-SODIUM DIETS

Adolph's
SALT SUBSTITUTE
Low sodium foods can now have all the tang of salt seasoning. Adolph's, only product containing MONO POTASSIUM GLUTAMATE, flavors—tastes—sprinkles like salt.

MAKES ALL MEAT MORE TENDER
Regardless of cut or grade, Adolph's guarantees tenderness, less shrinkage—cooking time, and improves flavor. Reduce meat budget by changing cooking methods of less expensive cuts.

Adolph's
MEAT TENDERIZER

For FREE SAMPLES write Dept. DA
ADOLPH'S FOOD PRODUCTS, L.A. 46, Calif

What makes cancer
MAN'S CRUELEST ENEMY?

SOME diseases kill us mercifully.

NOT CANCER. Yet, if nothing is done, 23 million living Americans are destined to die of cancer . . . 230,000 of them *this year*.

SOME diseases reveal their beginnings by pain or fever or shock. Not cancer. It starts silently, secretly, and too often spreads rapidly.

AND SOME diseases spare us our young people. Not cancer! It strikes men and women and children, the old and the young. If nothing is done, one American in five will be stricken with cancer.

SOMETHING CAN BE DONE. You can strike back at this cruel killer with a really generous gift to the American Cancer Society. Your money is *urgently* needed—for research, for education, for clinics and facilities. Please make it a really BIG gift!

Cancer
MAN'S CRUELEST ENEMY
Strike back—Give
AMERICAN CANCER SOCIETY

twenty-fifth anniversary under its present name. This was the first television show under the joint sponsorship of a large number of General Foods products. Principal sponsors of the 90-min. program were: Instant Maxwell House Coffee, Minute Rice, Jell-O Instant Puddings, Birds-eye Frosted Foods, Instant Sanka, and Swans Down Cake Mixes. Other General Foods products also shared the sponsorship to a lesser degree.

California Products of Chicago is marketing a line of "Instant Citro Crest Crystals" in lemon, orange, lemon-lime, and lime flavors. An 11-oz. jar of the lemon crystals is said to be equivalent in flavor value to 128 average-size lemons, squeezed-strength, and can be reconstituted to 8 gal. of "ade." The product can also be used in cooking, as well as for making drinks.

S. Blickman, Inc., is featuring its Tri-Saver twin urn for the simultaneous brewing of both bulk tea and coffee. Because this twin urn has separate liners, it is a simple matter to use one for tea and the other for coffee. Both iced and hot beverages can be served with equal facility. The Tri-Saver twin urns are available in capacities from 3 to 6 gal. for each liner.

Gerber Products Company now makes it easy for mothers to follow the U.S.D.A.'s canned food dictum, "Keep it cool and covered," with new metal covers of uniformly snug fit which snap on and quickly reclose any Gerber baby food for refrigerator storage. The covers are available in sets of four.

International Minerals and Chemical Corporation honors our Canadian neighbors by publishing the newest issue (No. 8) in its series of *Quantity Recipes* in both English and French. Canadian-style recipes are given for ten dishes. Even Ruby Foo's Cantonese lobster becomes "Homard Cantonais à la Ruby Foo's"; other foods, however, are more typically Canadian, such as Canadian-style baked partridge, Royal squab, Melton Mobray pie, and Winston's onion soup. All recipes feature Ac'cent, of course.

International Minerals & Chemical Corporation has announced a price cut in Ac'cent, made possible by greater operational efficiency in its Rossford, Ohio, plant and the doubling of production capacity in the San Jose, California, plant. The price of Ac'cent in lots of 20,000 lb. has been reduced from $1.70 a pound to $1.55.

Klenzade Products, Inc. in March held its annual two-week training course in Beloit, Wisconsin. The Klenzade Training School is conducted not only for the indoctrination of new salesmen, but also acts as a refresher course for field personnel generally. At this course, progress in sanitation techniques was discussed, and considerable time was devoted to advances in cleaning chemicals and their applications to effective cleaning routines. Among the various subjects were: the fundamentals of microbiology, sanitation chemistry, food- and utensil-borne infections and food poisonings, institutional sanitation, high-temperature equipment cleaning, general plant sanitation, poultry and egg sanitation, and sanitation in the food processing industry. Much of the material was illustrated with exhibits, slides, and films.

The *Paper Cup and Container Institute, Inc.* has prepared an attractive, forty-eight-page booklet titled *A Report on a Survey of the Increasing Use of Paper Cups and Containers as Reported by U. S. Hospitals*. In this, the first survey of its kind, the use of paper is described in various types of hospital food service, including contagious and tuberculosis, children's, and mental as well as general hospitals. Food service costs in five hospitals using paper cups and containers are discussed, and medical uses of paper items are also described. The various types of cups and containers are covered.

"Salt or No Salt," a leaflet newly issued by *Sunkist Growers*, contains twelve pages of ideas for using lemon in low-sodium and normal diets. Specific suggestions are given for adding lemon to salads, soups, desserts, fish, vegetables, meat, and poultry.

Adele G. Columbia has joined the *American Institute of Baking* staff as co-ordinator of nutrition and home economics education services, in the Institute's Consumer Service Department. Mrs. Columbia, who incidentally holds two degrees from Columbia University, will work with schools, colleges and universities, public health extension, and nursing groups to which nutrition education is important.

"Score with Breakfast," a colorful eight-page pamphlet, is also news at the *American Institute of Baking*. Designed for use by junior high school students, the booklet was planned by college home economics teachers, high school health and physical education teachers, and junior high school students themselves. Foods commonly used at breakfast are noted as sources of various nutrients; a breakfast supplying adequate calories and protein is listed on a form imitating a basketball score, with blank spaces for "your breakfast." Menus are given for 10-, 15-, and 25-min. breakfasts.

Universal Dishwashing Machinery Company has developed a new type of dual drive arrangement for both single- and double-tank, automatic conveyor dishwashing machines. Separate motors operate the power wash and drive the conveyor to operate the final rinse. With this new type of drive, completely separate operation is possible for each procedure, e.g., glasses, after brush scrubbing, may be run through the dishwashing machine for a final sterilizing rinse only.

Metropolitan Wire Goods Corporation's newest Sani-Stack rack has plastisol coated pegs where pots may be placed for machine washing. Its sides extend above the pegs to protect pots and pegs. Stacking lugs permit transportation, washing, air drying, and storage of pots in the same rack without handling. The standard design, with twenty-five pegs, will accommodate different sizes and shapes of pots. Special racks, with whatever number of pegs required, can also be built.